

BOONE SMART GROWTH AUDIT 2007

TOWN OF BOONE, NORTH CAROLINA



ACKNOWLEDGEMENTS



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EXECUTIVE SUMMARY

In the spring of 2007, the Town of Boone, North Carolina retained the Lawrence Group to conduct a Smart Growth Audit with the intent to “assess current growth policies and implementation measures for the expressed purpose of revising existing plans, policies and practices as may be necessary to promote accepted principles of Smart Growth within the desired community context of Boone.” This report provides an assessment of the Town’s existing growth and development policies, programs, and ordinances in relation to the principles of Smart Growth and provides dozens of recommendations for implementing Smart Growth practices in Boone.

The recommendations in this report are based on interviews with a broad range of community stakeholders and a detailed review of the policies, strategies, and regulations in Boone’s long range and implementing programs. The Lawrence Group undertook a line-by-line review of Boone’s regulatory and planning documents to come up with detailed recommendations related to various policies and ordinance provisions (see the Appendix). From these specific recommendations emerged 70 broad strategic initiatives, which are detailed in the body of the report.

Based on interviews and review of the audit documents, the major Smart Growth disconnect for Boone appears to be that the local implementing programs and ordinances are leading to a future markedly different than the vision of the long range plans and policies. This a future that will be challenging, at best, for Smart Growth given current land use and transportation patterns. The implementing programs and ordinances provide primarily for an automobile-oriented, suburban style of future development, although the Town is making an on-going and concerted effort to change this trend.

The matrix that follows lists the 70 major recommendations in the report. They are organized by Smart Growth Principle and assigned

a first, second, or third priority. The matrix suggests the primary implementing agency for each initiative and other initiatives that each action step should be coordinated with. The matrix also includes a column indicating “Status” of implementation. This column has been left blank in hopes that it will be used over time to track progress on implementation of the various recommendations.

The audit’s highest priority recommendation is the completion of a strategic land use master plan based on Boone’s vision of Smart Growth. Many of the other recommendations will follow from this effort, including the rewriting of the Unified Development Ordinance (UDO) based on the growth and development vision established by the master plan. The bulk of the recommendations in the audit report relate to changes to existing land development regulations. Ideally, the Town will undertake wholesale revisions to the UDO based on the principles of Smart Growth. In the meantime, a more incremental approach to changes in the regulations is possible based on the specific recommendations in the report. There are also many action steps that can be initiated immediately or are already underway.

As an initial implementation step, the interested stakeholders in the Boone should do their own prioritization of these recommendations. Local individuals and agencies who will implement these actions will have a much better sense of what is realistic and feasible for Boone and which actions should be pursued first based on cost, political feasibility, the required effort, and the potential impact. A discussion about community priorities for Smart Growth implementation may also help achieve consensus and buy-in among the various community leaders and stakeholders regarding the recommendations and reveal the most strategic approach to these initiatives.

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
1. MIX LAND USES						
10	Studies & Plans	Develop Strategic Land Use Master Plan	1	Town of Boone	Apply the Transect	
12	Policy & Ordinance Amendments	Apply the Transect	1	Town of Boone	Develop Strategic Land Use Master Plan	
12	Policy & Ordinance Amendments	Allow Mixed-Use Development By-Right	2	Town of Boone	Develop Strategic Land Use Master Plan	
13	Policy & Ordinance Amendments	Allow Greater Mixed-Use in Other Districts	2	Town of Boone	Use Form-Based Coding	
14	Policy & Ordinance Amendments	Use Form-Based Coding	2	Town of Boone	Apply the Transect	
2. COMPACT BUILDING DESIGN						
16	Policy & Ordinance Amendments	Encourage Greater Density	2	Town of Boone	Develop Strategic Land Use Master Plan; Apply the Transect	
17	Policy & Ordinance Amendments	Concentrate Commercial Development in Mixed-Use Nodes	2	Town of Boone	Develop Strategic Land Use Master Plan	
17	Studies & Plans	Locate Highest Density Residential Near Existing and Future Mixed-Use Centers	2	Town of Boone	Develop Strategic Land Use Master Plan	
18	Policy & Ordinance Amendments	Reduce Setback/Dimensional Standards	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
19	Policy & Ordinance Amendments	Use Density-Based Districts	1	Town of Boone	Use Form-Based Coding	
19	Policy & Ordinance Amendments	Update Density & Height Requirements	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
20	Policy & Ordinance Amendments	Use Density Bonuses	2	Town of Boone	Use Form-Based Coding	
20	Policy & Ordinance Amendments	Revise Parking Standards	1	Town of Boone	Apply the Transect; Use Form-Based Coding	
22	Policy & Ordinance Amendments	Revise Screening/Buffer Standards	2	Town of Boone	Apply the Transect; Use Form-Based Coding	

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
3. HOUSING OPPORTUNITIES AND CHOICES						
24	Policy & Ordinance Amendments	Revise Accessory Apartment Standards	1	Town of Boone		
24	Policy & Ordinance Amendments	Allow Duplexes and Townhomes More Widely	1	Town of Boone	Revise Accessory Apartment Standards; Apply the Transect	
24	Policy & Ordinance Amendments	Remove Barriers for Accessory Apartments and Duplexes	1	Town of Boone	Revise Accessory Apartment Standards	
25	Policy & Ordinance Amendments	Allow Multifamily Housing By-Right with Conditions	2	Town of Boone	Strategic Land Use Master Plan; Use Form-Based Coding	
25	Policy & Ordinance Amendments	Allow Cottage Housing Development (CHD)	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
26	Support, Assistance & Coordination	Work with University to Maximize On-Campus Housing Options	2	Town of Boone, Appalachian State University	Develop Strategic Land Use Master Plan	
27	Policy & Ordinance Amendments	Investigate Car-Free Housing Allowances	3	Town of Boone	Apply the Transect; Use Form-Based Coding	
27	Policy & Ordinance Amendments	Tax Rebates for Housing in Eligible Areas	3	Town of Boone	Develop Strategic Land Use Master Plan	
27	Policy & Ordinance Amendments	Consider Inclusionary Housing Provisions	2	Town of Boone		
4. WALKABLE COMMUNITIES						
30	Policy & Ordinance Amendments	Revise Sidewalk and Streetscape Requirements	1	Town of Boone	Apply the Transect; Use Form-Based Coding	
32	Policy & Ordinance Amendments	Adopt a Pedestrian Network Requirement	1	Town of Boone, NCDOT	Use Form-Based Coding	
32	Support, Assistance & Coordination	Support Safe Routes to School Initiatives and Infrastructure	2	Town of Boone, NCDOT, Watauga County Schools	Make Pedestrian Crossings Safer	
32	Capital Improvements	Make Pedestrian Crossings Safer	1	Town of Boone, NCDOT	Support Safe Routes to School Initiatives and Infrastructure	

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
33	Support, Assistance & Coordination	Lobby NCDOT for Other Walkable Facilities	1	Town of Boone	Make Pedestrian Crossings Safer	
33	Studies & Plans	Continue Walkability Audits	2	Town of Boone, Volunteers		
33	Policy & Ordinance Amendments	Pedestrian-Oriented Design Standards	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
34	Policy & Ordinance Amendments	Restrict Drive-Thrus in Walkable Districts	2	Town of Boone	Use Form-Based Coding	
5. DISTINCTIVE, ATTRACTIVE COMMUNITIES						
36	Policy & Ordinance Amendments	Apply Design Standards that Support Smart Growth	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
36	Policy & Ordinance Amendments	Revise Sign Standards	2	Town of Boone	Use Form-Based Coding	
37	Marketing, Business & Program Development	Create Opportunities for Community Interaction	3	Town of Boone, Downtown Boone Development Association	Downtown Master Plan	
37	Policy & Ordinance Amendments	Implement Percent-For-Art Policy/Ordinance	2	Town of Boone		
38	Policy & Ordinance Amendments	Enhance Neighborhood Conservation Standards	2	Town of Boone		
38	Policy & Ordinance Amendments	Enhance Streetscape Requirements	2	Town of Boone	Use Form-Based Coding	
39	Marketing, Business & Program Development	Develop Distinctive Public Transit	3	Town of Boone, AppalCART, ASU		
6. OPEN SPACE, FARMLAND, NATURAL BEAUTY						
42	Studies & Plans	Open Space/Green Infrastructure Plan	2	Town of Boone	Develop Strategic Land Use Master Plan	
43	Studies & Plans	Develop a Comprehensive Storm Drainage and Floodplain Management Plan	1	Town of Boone	Open Space/Green Infrastructure Plan	

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
44	Policy & Ordinance Amendments	Consider Density Bonuses and TDR in Exchange for Preservation of Sensitive Environmental Features	2	Town of Boone	Develop Strategic Land Use Master Plan	
45	Policy & Ordinance Amendments	Protect Agricultural Lands	1	Town of Boone	Develop Strategic Land Use Master Plan; Open Space/Green Infrastructure Plan; Apply the Transect	
46	Policy & Ordinance Amendments	Require/Incent Permeable Paving and Other LID Provisions in Development Standards	1	Town of Boone	Develop a Comprehensive Storm Drainage and Floodplain Management Plan; Use Form-Based Coding	
46	Policy & Ordinance Amendments	Revise Tree and Landscape Protection Standards	1	Town of Boone	Apply the Transect; Use Form-Based Coding	
48	Policy & Ordinance Amendments	Enhance Recreation Space Requirements	2	Town of Boone	Open Space/Green Infrastructure Plan; Use Form-Based Coding	
49	Policy & Ordinance Amendments	Implement Policy Initiatives for Sustainability	2	Town of Boone		
50	Policy & Ordinance Amendments	Encourage Green Building Standards for Private Development	2	Town of Boone	Implement Policy Initiatives for Sustainability	
7. EXISTING COMMUNITIES						
52	Policy & Ordinance Amendments	Provide Incentives to Locate in Areas with Existing Infrastructure	2	Town of Boone	Develop Strategic Land Use Master Plan; Apply the Transect	
53	Studies & Plans	Develop a Downtown Master Plan	1	Town of Boone, Downtown Boone Development Assoc.	Develop Strategic Land Use Master Plan	
54	Studies & Plans	Develop a Downtown Parking Plan	1	Town of Boone, DBDA	Develop a Downtown Master Plan	
56	Policy & Ordinance Amendments	Protect Historic Resources in Downtown	2	Town of Boone, DBDA	Develop a Downtown Master Plan	

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
8. TRANSPORTATION CHOICES						
59	Studies & Plans	Update Thoroughfare Plan and Prepare Master Plan for Transportation	1	Town of Boone, NCDOT, High Country RPO	Develop Strategic Land Use Master Plan	
59	Studies & Plans	Update Plan for Transit, Pedestrian, & Bicycle Infrastructure	1	Town of Boone, NCDOT, High Country RPO	Prepare Master Plan for Transportation	
60	Capital Improvements	Establish Retrofit Connectivity Program	3	Town of Boone		
60	Policy & Ordinance Amendments	Require Bicycle Parking for New Development	1	Town of Boone	Use Form-Based Coding	
61	Capital Improvements	Provide Bicycle Parking at Existing Development	2	Town of Boone		
61	Policy & Ordinance Amendments	Implement TDM Measures	2	Town of Boone, ASU, High Country RPO	Update Thoroughfare Plan and Prepare Master plan for Transportation	
62	Policy & Ordinance Amendments	Develop Standards for Streets Related to the Development Context of the Area	2	Town of Boone	Apply the Transect; Use Form-Based Coding	
63	Policy & Ordinance Amendments	Improve Roadway Connectivity Standards	2	Town of Boone	Prepare Master Plan for Transportation	
63	Policy & Ordinance Amendments	Revise and Enhance TIA Requirements	2	Town of Boone	Use Form-Based Coding	
64	Support, Assistance & Coordination	Apply (and Enforce) Appropriate Urban Speed Limits on Major Streets	1	Town of Boone Police Department, NCDOT	Update Thoroughfare Plan and Prepare Master Plan for Transportation	
64	Marketing, Business & Program Development	Initiate Education and Encouragement Efforts	3	Town of Boone, NCDOT, ASU, High Country RPO	Update Plan for Transit, Pedestrian, & Bicycle Infrastructure	
65	Support, Assistance & Coordination	Allocate Funding Based on Smart Growth Priorities	2	Town of Boone	Update Plan for Transit, Pedestrian, & Bicycle Infrastructure	

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Page	Project/Task Type	Project/Task	Priority	Implementing Agency	Coordinate with (Project/Task Section)	Status
9. DEVELOPMENT DECISIONS						
68	Policy & Ordinance Amendments	Make Development Standards Clear and Easy to Interpret	2	Town of Boone	Use Form-Based Coding	
69	Policy & Ordinance Amendments	Allow By-Right Development that Meets Community Objectives	1	Town of Boone	Use Form-Based Coding	
70	Support, Assistance & Coordination	Prepare User-Friendly Documents & Forms	1	Town of Boone		
70	Marketing, Business & Program Development	Create Fact Sheets and Other Info About Development Incentives and Other Smart Growth-Oriented Programs	3	Town of Boone, Boone Downtown Development Association	Initiate Education and Encouragement Efforts	
10. STAKEHOLDER COLLABORATION						
74	Support, Assistance & Coordination	Continue Regional Stakeholder Dialogue	1	Town of Boone, ASU, Watauga County	Initiate Education and Encouragement Efforts	
74	Support, Assistance & Coordination	Use Charrettes for Key Community Projects	3	Town of Boone	Initiate Education and Encouragement Efforts	
74	Marketing, Business & Program Development	Continue Community Dialogue on Smart Growth Through Events, Education, Speakers, etc.	2	Town of Boone	Initiate Education and Encouragement Efforts	

INTRODUCTION

In the spring of 2007, the Town of Boone retained the Lawrence Group to conduct a Smart Growth Audit with the intent to “assess current growth policies and implementation measures for the expressed purpose of revising existing plans, policies and practices as may be necessary to promote accepted principles of Smart Growth within the desired community context of Boone.” This report provides an assessment of the Town’s existing growth and development policies, programs, and ordinances in relation to the principles of Smart Growth and provides dozens of recommendations for implementing Smart Growth practices.

The recommendations in this report are based on interviews with a broad range of community stakeholders and a detailed review of the policies, strategies, and regulations in Boone’s long range and implementing programs. The Lawrence Group undertook a line-by-line review of these documents to come up with detailed recommendations related to various policies and ordinance provisions (included in the Appendix). From these specific recommendations emerged numerous broad strategic initiatives which are detailed in the body of the report.

Based on interviews and review of the audit documents, the major Smart Growth disconnect for Boone appears to be that the local implementing programs and ordinances are leading to a future markedly different than the vision of the long range plans and policies. This a future that will be challenging, at best, for Smart Growth given current land use and transportation patterns. The implementing programs and ordinances provide primarily for an automobile-oriented, suburban style of future development, although the Town is making an on-going and concerted effort to change this trend. The bulk of this report focuses on recommended changes to the implementing ordinances and programs.

Both the interviews and document review revealed significant barriers to implementing Smart Growth, but also many noteworthy

accomplishments and very promising opportunities. The prospects for implementing Smart Growth in Boone are good: Roadways are approaching gridlock. Land prices and housing prices are creating an acute affordable housing shortage. Environmental issues of water quality, water quantity, and water availability are becoming critical. At the same time, the University is growing, national and regional demographics are creating more demand for compact housing options. . . All of these factors make conditions ripe for putting Smart Growth principles into practice.

This report is part of a community dialogue on growth and development that has been going on in Boone for years. As referenced throughout this report, many of the recommended action steps are already being initiated or considered through the proactive efforts of Boone leaders, staff, citizens, developers and business owners, and non-governmental organizations and agencies. That this report was commissioned is a testament to Boone’s commitment to bring Smart Growth to the forefront of the public dialogue. The Lawrence Group is honored to have been part of this discussion and we commend the Town leaders, staff, citizen volunteers, and local organizations for championing the issue of Smart Growth. We hope that this report and the recommendations herein will contribute in some small way to the ongoing process to create an environment of Smart Growth in Boone.

WHAT IS SMART GROWTH?

SMART GROWTH PRINCIPLES

1. Mix land uses.
2. Take advantage of compact building design.
3. Create a range of housing opportunities and choices.
4. Create walkable communities.
5. Foster distinctive, attractive communities with a strong sense of place.
6. Preserve open space, farmland, natural beauty, and critical environmental areas.
7. Strengthen and direct development towards existing communities.
8. Provide a variety of transportation choices.
9. Make development decisions fair, predictable, and cost effective.
10. Encourage community and stakeholder collaboration in development decisions.

Smart Growth Network

Smart growth is town-centered, transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities. In communities across the nation, there is a growing concern that current development patterns—dominated by what some call “sprawl”—are no longer in the long-term interest of our towns, rural communities, or wilderness areas.

Though supportive of growth, communities are questioning the economic costs of abandoning infrastructure in the city, only to rebuild it further out. They are questioning the wisdom of abandoning “brownfields” in older communities, eating up the open space and prime agricultural lands at the suburban fringe, and polluting the air of an entire region by driving farther to get places.

Spurring the Smart Growth movement are demographic shifts, a strong environmental ethic, increased fiscal concerns, and more nuanced views of growth. The result is both a new demand and a new opportunity for Smart Growth.

Smart growth recognizes connections between development and quality of life. It leverages new growth to improve the community. The features that distinguish Smart Growth in a community vary from place to place. In general, Smart Growth invests time, attention, and resources in restoring community and vitality to town centers and older neighborhoods.

But there is no “one-size-fits-all” solution. Successful communities do tend to have one thing in common—a vision of where they want to go and of what things they value in their community—and their plans for development reflect these values.

(Text adapted from executive summary of *Why Smart Growth: A Primer* by International City/County Management Association with Geoff Anderson, 7/98, as published at www.smartgrowth.org.)

WHAT IS SMART GROWTH?

WHAT WOULD SMART GROWTH LOOK LIKE?

Many more developments would look like the transit-oriented developments and new urbanist neighborhoods already going up in almost every city in the country, and these developments would start filling in vacant lots or failing strip shopping centers, or would revitalize older town centers, rather than replacing forests or farmland. Most developments would no longer be single-use subdivisions or office parks, but would mix shops, schools, and offices together with homes. They might feature ground-floor stores and offices with living space above, or townhomes within walking distance of a retail center. Most developments would be built to connect seamlessly with the external street network.

[A.C.] Nelson's work shows that the average density of residential development in U.S. urban areas was about 7.6 units per acre in 2003. His predictions of shifting market demand indicate that all housing growth to 2025 could be accommodated by building condominiums, apartments, townhomes, and detached houses on small lots, while maintaining the current stock of houses on large lots. Under this scenario, while new developments would average a density of 13 units per acre, the average density of metropolitan areas overall would rise modestly, to about nine units per acre.

Fortunately, Smart Growth is a change that many Americans will embrace. Evidence abounds that Americans are demanding more choices in where and how they live—and that changing demographics will accelerate that demand.

While prevailing zoning and development practices typically make sprawling development easier to build, developers who make the effort to create compact communities are encountering a responsive public. The real estate analysis firm Robert Charles Lesser & Co. has conducted a dozen consumer preference surveys in suburban and urban locations for a variety of builders. . . The surveys have found that in every location examined, about one-third of respondents

prefer Smart Growth housing products and communities. Other studies by the National Association of Homebuilders, the National Association of Realtors, the Fannie Mae Foundation, high-production builders, and other researchers have corroborated these results—some estimating even greater demand for Smart Growth housing products.

When Smart Growth also offers shorter commutes, it appeals to *another* one-quarter of the market, because many people are willing to trade lot or house size for shorter commutes [emphasis added]. Because the demand is greater than the current supply, the price-per-square foot values of houses in mixed-use neighborhoods show price premiums ranging from 40 to 100 percent, compared to houses in nearby single-use subdivisions, according to a study by Chris Leinberger of the Brookings Institution.

This market demand is only expected to grow over the next several decades, as the share of households with children shrinks and those made up of older Americans grows with the retiring of baby boomers. Households without children will account for close to 90 percent of new housing demand, and single-person households will account for a one-third.

In addition to being in line with market demand, Smart Growth provides many other benefits and will cost the economy little or nothing. Research has documented that compact development helps preserve farmland and open space, protect water quality, and improve health by providing more opportunities for physical activity. Studies also have confirmed that compact development saves taxpayers money, particularly by reducing the costs of infrastructure such as roads and water and sewer lines.

Excerpted from Ewing, et al, Growing Cooler: The Evidence on Urban Development and Climate Change. ULI, 2007.

AUDIT PROCESS

To guide and direct the audit process, the Town convened a nine member, Town Council-appointed Smart Growth Audit Advisory Committee consisting of two members of the Town Council, four members of the Planning Commission, and three Town staff members including the Town Manager, Planning Director, and the Planning Supervisor. (The names of the Advisory Committee members are listed on the inside cover of this report.)

The Lawrence Group held a project kick-off meeting in July, 2007 with the Advisory Committee and staff of Boone's Development Services Department to introduce the project and to elicit feedback from the Committee on goals and key issues for the project as well as input on the project format. The committee completed and discussed results of the "Smart Growth Scorecard" survey, a community-self assessment tool developed by the Vermont Forum on Sprawl. The compiled survey results indicated that Boone is "in transition" between a future that is Smart Growth-oriented or not.

In August 2007, Lawrence Group planners returned to Boone for a tour of the town with the Advisory Committee.

Over the course of September 10th and 11th, 2007, Lawrence Group planners conducted interviews with nine stakeholder groups representing various planning and development perspectives in the greater Boone area. These groups and the participating individuals were identified by the Advisory Committee and Town staff and were intended to provide a broad cross-section of view points on the issue of growth and development in Boone. The stakeholder groups generally represented the following affiliations:

Appalachian State University
Town Staff
Watauga County
Local Development Community
Boone Neighborhood Residents (homeowners)

Transportation Officials
Land Use & Environmental Advocates
Utility Providers
Business Owners

Prior to and subsequent to the interview process, the Lawrence Group thoroughly reviewed the following documents to determine their consistency with the Smart Growth principles.

Policy Plans and Analysis:

- Walk Boone report (2007)
- Recommended Changes to the UDO: Memo to the Affordable Housing Task Force (2007)
- Proposed Changes to the UDO (2006)
- *Comprehensive Plan Update* (2006)
- *Downtown Boone Public Art Master Plan* (2006)
- Draft Subdivision Amendments (2005)
- *Central Business District Analysis & Recommendations* (2006)
- *Water System Hydraulic Analysis & Master Plan* (2004)
- *Appalachian State University Campus Master Plan* (2000)
- *Boone/Blowing Rock Alternative Transportation Plan* (1995)
- *Thoroughfare Plan Report for the Town of Boone* (1991)

Implementation Plans and Ordinances:

- *Town of Boone Unified Development Ordinance*
- Official Zoning Map, Town of Boone
- *Town of Boone Water and Sewer Use Ordinance*
- Ordinance 05-01 Policy Concerning the Provision of Water Service to New Customers
- Town of Boone 5 Year Storm Water Spending Plan (draft)

A draft of this report and the key recommendations were presented to the Advisory Committee and the Planning Commission in November, 2007 for review and revisions prior to presentation to the Town Council for adoption.

STAKEHOLDER FEEDBACK

The following feedback was provided by the Audit Advisory Committee at the kick-off meeting. This list provides an overview of the general Smart Growth issues and priorities facing Boone. The list is also very consistent with the feedback from the stakeholder interviews, which is listed in the Appendix. The feedback from the Advisory Committee and the stakeholder interviews have been combined, synthesized, and organized by Smart Growth principle in the topic sections that follow. All of the items in quotes in the topic sections are direct feedback from stakeholders.

SMART GROWTH VISIONS FOR BOONE

- Student housing as close to campus as possible
- Simplified, reader-friendly, SG-driven UDO
- UDO that respects the community's work reflected in plans
- Satellite neighborhood centers
- Designated commercial centers
- Grocery stores that are smaller, near residential development
- Building up versus building out: more multi-story development
- Mixed-use buildings
- Getting value out of natural resources: allowing property owners to incorporate natural features in new development
- Create a walkable community, and
- Provide a variety of housing choices.

SMART GROWTH ADVANTAGES/ACCOMPLISHMENTS IN BOONE

- Citizens committed to good development and protecting natural sources
- Sidewalks: being built as capital projects; now required for most new development
- Walking Audit: "Walk Boone"
- Town/university subsidy of transit system: free to anyone
- Expanding greenway system
- Funding for acquisition of greenspace: FEMA buyouts of flood-

- prone areas, etc.
- Strong stream buffer regulations
- Adopted mixed-use zoning district and conditional use zoning
- Mixing of land uses – part of the public discussion
- Good job of directing development through sewer/water provision
- Viewsheds intact
- Narrow neighborhood street standards (18-20')
- Traffic calming on neighborhood streets
- 10-day turn around on development review
- Downtown is doing well
- Howard Street streetscape project for streetscape and infrastructure
- New development is enhancing community through: appearance standards; landscaping; commercial developers are responding
- Identifying stormwater management goals

GROWTH AND DEVELOPMENT ISSUES FACING BOONE

- Balancing competing interests
- Traffic
- Affordable housing
- Hard to provide workforce housing
- Problem with location of student housing
- Student encroachment in existing neighborhoods
- Where/how University grows:
 - University not interested in dealing with traffic/parking
 - University projecting growth of 2,000-6,000 students
- Students claim they "have nowhere to go" hangout; not much nightlife downtown
- User-unfriendly UDO: creates animosity towards Town
- Protecting natural resources
 - Dealing with flooding issues as we grow
 - Water quality
 - Stormwater management

STAKEHOLDER FEEDBACK

- Water availability: need for natural groundwater recharge
- Need priority on wetlands and floodplains
- Boone at headwaters of 3 watersheds
- How growth is affecting long-time residents
- Where do we grow?
- Limitations with water/sewer services
- Need UDO to respect the work of citizens in the Town's plans
- Need to work on RE-development
- Too much parking required; especially in downtown, unused parking lots
- Maintaining the cultural, historical, sense of place re: appearance and affect on tourism
- Need to update the Tree Master Plan to reflect urban forest
- Role of Boone in Watauga County

COMMUNITIES THAT COULD BE MODELS FOR BOONE...

Stakeholders also suggested the following communities as potential models for Boone's future development:

- Carrboro, NC
- Greensboro Southside
- Madison, WI
- Davidson, NC
- Washington D.C.
- Winooski, VT
- Rocky Mt, NC
- Chapel Hill, NC
- Blacksburg, VA
- Boulder, CO
- Blowing Rock, NC
- Banner Elk, NC
- West Jefferson, NC

SMART GROWTH PRIORITIES FOR BOONE

Project stakeholders were asked which are the Smart Growth priorities for Boone. The following is a list of the Smart Growth principles organized in priority order based on polling of stakeholders. The number in parentheses indicates the number of times the principle was mentioned as a priority

1. Create Walkable Communities (6)
2. Mix Land Uses (5)
3. Make Development Decisions Predictable, Fair, and Cost Effective (4)
4. Foster Distinctive, Attractive Communities with a Strong Sense of Place (3)
5. Encourage Community and Stakeholder Collaboration in Development Decisions (3)
6. Strengthen and Direct Development Toward Existing Communities (2)
7. Provide a Variety of Transportation Choices (2)
8. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas (1)
9. Create a Range of Housing Opportunities and Choices (1)
10. Take Advantage of Compact Building Design (1)

Based on the number of comments by stakeholders on these topics, principles 6 (Preserve Open Space, Farmland, Natural Beauty), 9 (Make Development Decisions Predictable), and 8 (Provide a Variety of Transportation Choices) respectively were the three most important principles to the participants in the audit process.

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1. MIX LAND USES

VISION

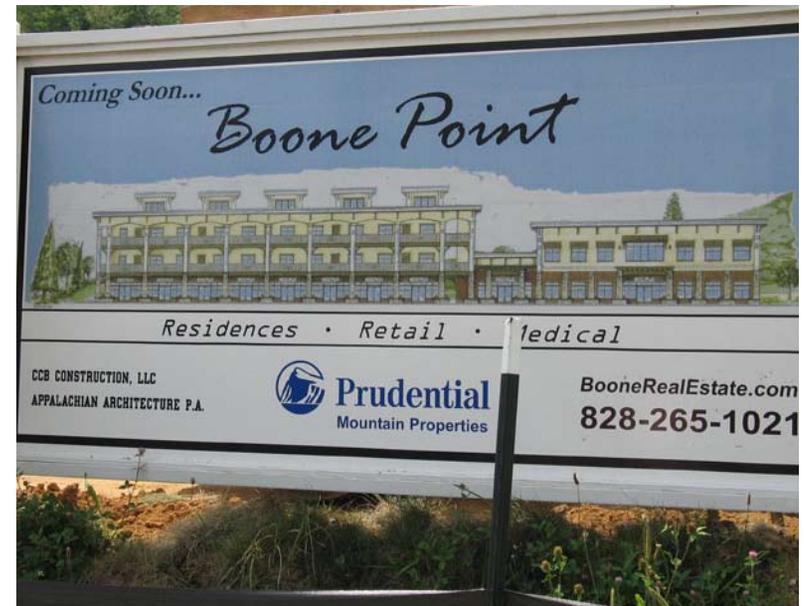
- “Satellite neighborhood centers”
- “Designated commercial centers”
- “Grocery stores that are smaller, near residential development”
- “Mixed-use buildings”

STRENGTHS/ACCOMPLISHMENTS

- “Adopted mixed-use zoning districts and conditional use zoning”
- “Mixing of land uses—part of the public discussion”
- “New water and sewer will help with mixed-use redevelopment along Howard Street”
- “Town’s first new mixed-use project under construction”

OPPORTUNITIES/WEAKNESSES

- “Major impediment is lack of an overriding master plan for growth”
- “Need to develop a land use plan and corridor plans”
- “Need more mixed use”
- “Need to encourage mixed-use, residential/commercial development”
- “Need to allow mixed-use by right”
- “Mixed-use requirements are not working in regards to commercial. It’s too excessive to do 25% of commercial.”
- “Mixed-use would benefit traffic problems”
- “Where/how University grows”
- “Zoning map is based on separation of uses”



Boone Point: Boone’s first new mixed-use development.



New mixed-use retail/office building in Fort Mill, SC.

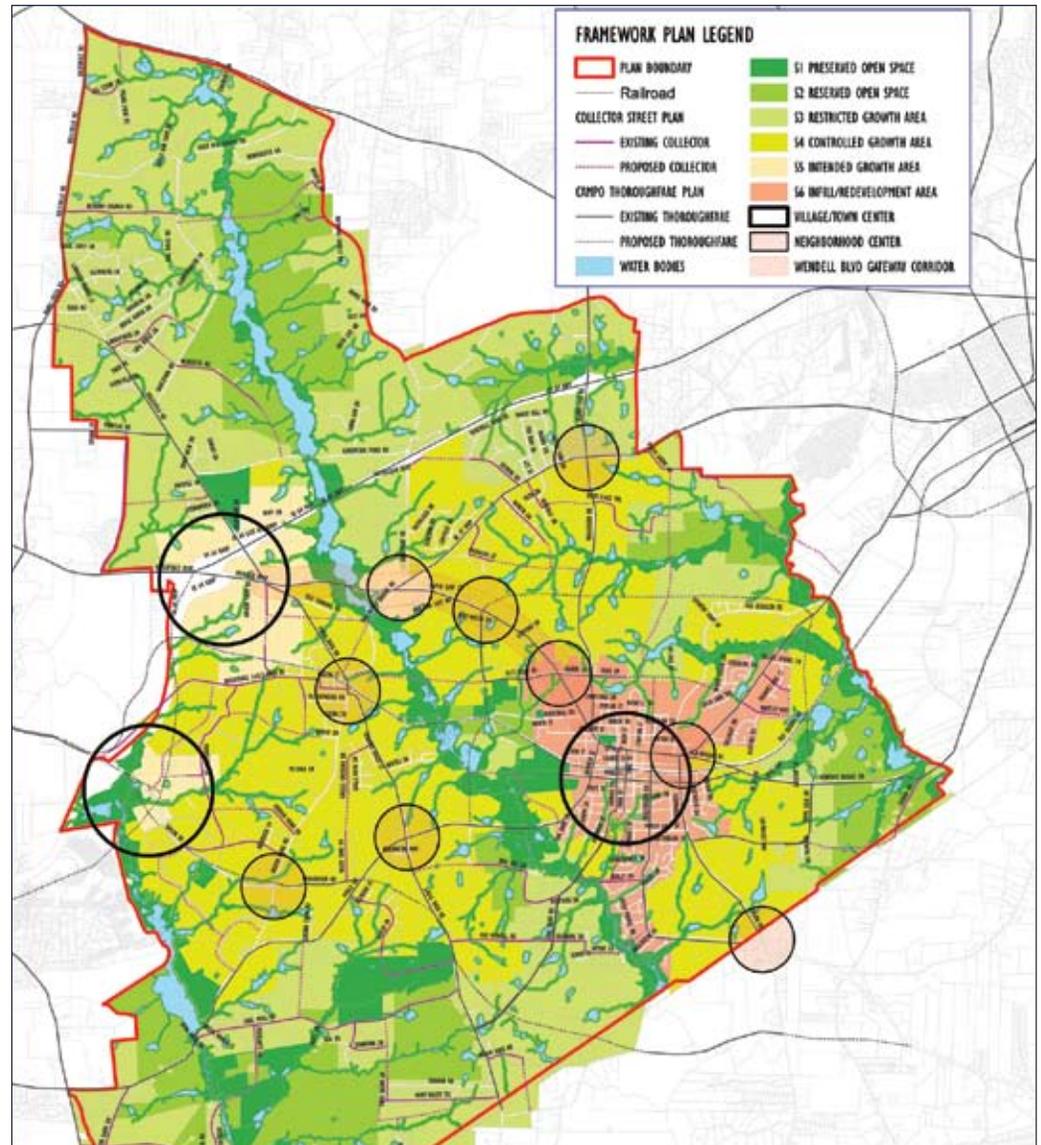
MIX LAND USES

RECOMMENDATIONS

DEVELOP STRATEGIC LAND USE MASTER PLAN

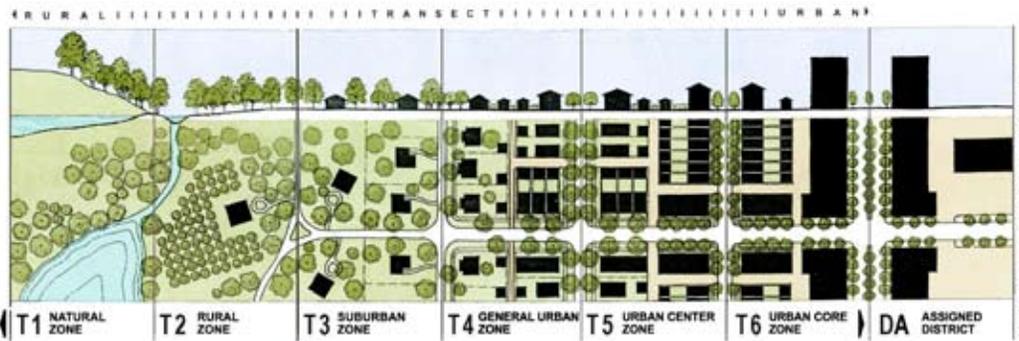
The Town's existing comprehensive plan includes excellent policy statements and objectives regarding Smart Growth. The Town has also developed a very useful Growth Strategy Map, which provides very useful guidance as to future growth areas. However, this map and the comprehensive plan lack the parcel-level detail needed to define areas that should be protected, redeveloped, or developed as compact, walkable neighborhoods or mixed-use centers. The result is that Town's land use future is being decided on an ad hoc basis. First, development decisions are being made by the existing Zoning Map, which is based primarily on the notion of separating uses and lacks the detail to facilitate the Town's Smart Growth goals. Secondly, growth is being decided incrementally by individual developers' intent for various pieces of land rather than by a comprehensive land use vision developed by the Town, its stakeholders, and its citizens.

This audit's over-arching recommendation for the pursuit of Smart Growth is that the Town develop a land use and development master plan to serve as the guiding vision and policy basis for determining the appropriateness of any development or redevelopment that is proposed for Boone. This recommendation is consistent with the *Comprehensive Plan Update's* suggestion of a "more comprehensive, long range planning process." Such a plan would provide Town Council and staff with a way to proactively determine if proposed rezonings, annexations, or proposed developments fit with the Town's vision for the area and the capacity of the Town's resources to serve this new development. This plan would also ultimately be linked to the development regulations and design standards for various parts of the community and could be used to determine what design standards are appropriate for new development in various part of the community. Ideally, such a plan would be coordinated with the master planning efforts that Appalachian State University and Watauga County are preparing to undertake.



Framework land use policy plan for Wendell, NC. Based on the TransectMap method of land use classification, the map shows areas that are to be preserved (in shades of green), areas for infill development (in salmon color) and areas for new development (in shades of yellow and taupe). Existing or proposed mixed-used nodes are shown as circles.

MIX LAND USES



Graphic by Duany Plater-Zyberk and Company

This audit recommends a land planning process that follows the TransectMap land classification methodology developed by Criterion Planners. This methodology is based on the concept of the Rural-Urban Transect, which is a means of classifying the natural and built environments as a continuum of six conditions including: natural, rural, suburban, general urban, urban center, and urban core. Other methods could also be used, but the fundamental premise of the Transect approach is that different development types and standards are appropriate in different parts of the community.

The TransectMap process identifies three major land categories and follows the following steps:

Areas to be Preserved or Reserved

The first step is an environmental analysis to determine which areas should be preserved or conserved for environmental, agricultural, and/or viewshed protection purposes. This analysis would provide the basis for prioritizing land acquisition and protection efforts and development regulations for sensitive areas. Boone has already done good work in this arena with the Viewshed Protection Map and steep slope regulations.

Areas for Infill and Redevelopment

The next step is to determine areas that are appropriate for redevelopment or infill development, typically areas like downtown and key redevelopment sites such as the existing high school location.

Areas for New Growth and Development

The final stage is to define areas that are appropriate for new regional and neighborhood-serving mixed-use centers and higher intensity development; and lastly, areas that are appropriate for new, low-density residential type development.

	← Less Density	More Density →
	← Primarily Residential	Primarily Mixed-Use →
	← Smaller Buildings	Larger Buildings →
	← More Greenspace	More Hardscape →
	← Detached Buildings	Attached Buildings →
	← Rotated Frontages	Aligned Frontages →
	← Yards & Porches	Stoops & Shopfronts →
	← Deep Setbacks	Shallow Setbacks →
	← Articulated Massing	Simple Massing →
	← Wooden Buildings	Masonry Buildings →
	← Generally Pitched Roofs	Generally Flat Roofs →
	← Small Yard Signs	Building Mounted Signage →
	← Livestock	Domestic Animals →
PRIVATE	← Roads & Lanes	Streets & Alleys →
	← Narrow Paths	Wide Sidewalks →
	← High L.O.S. Standards	Low L.O.S. Standards →
	← Opportunistic Parking	Dedicated Parking →
PUBLIC	← Larger Curb Radii	Smaller Curb Radii →
	← Open Swales	Raised Curbs →
	← Starlight	Street Lighting →
CIVIC	← Mixed Tree Clusters	Aligned Street Trees →
	← Local Gathering Places	Regional Institutions →
	← Parks & Greens	Piazas & Squares →

Table by Duany Plater-Zyberk and Company

The graphic above and the accompanying table show the various land use conditions and the design elements that characterize the Transect's urban-rural continuum. The graphic shows a bird's-eye view of generalized intensities of development, with building forms shown in black.

MIX LAND USES

APPLY THE TRANSECT

A land use master plan would identify with precision the type of development that is desired for each part of Boone and appropriate locations, density, and design standards for such. As part of a town-wide plan, the Transect model should be applied at the “pedestrian shed” level (1/4 mile radius or a five-minute walk). The Transect specifies development and design details for each Transect zone. The graphic on the previous page shows the defining features of development along the Transect spectrum. For example, a rural street typically has no curbs or sidewalks and its buildings are typically farmhouses or barns. An urban street, depending on the intensity of urbanism, may have curb and gutter, regularly placed street trees, sidewalks, and building forms such as common walls and flat roofs.

Each Transect category has detailed provisions for density; height; parking design of buildings, streets, parks, and neighborhoods; and other aspects of the human and natural environment. Transect zones can be used to define the type, intensity, and design of development for areas that are proposed for new development as well as the areas that are proposed to remain essentially unchanged. The Transect concept ultimately provides the basis for new Smart Growth regulatory standards.

ALLOW MIXED-USE DEVELOPMENT BY-RIGHT

Boone has recently taken the proactive step of adopting floating Mixed-Use Districts, which correspond to the three existing business zoning districts. The districts include very good Smart Growth standards to encourage the mixing of uses in buildings with pedestrian-oriented design standards in areas currently zoned for commercial development. The districts include good provisions to encourage greater density and promote compact, walkable development. The primary problem with these districts is that they are optional and carry with them the requirement of a subjective approval process. A developer can only apply the standards after a conditional rezoning approved by the Town Council.



Mixed-use commercial/residential building in Chapel Hill, NC.

If the Town wants to genuinely encourage this type of development, the Mixed-Use standards should be the by-right standards for all Business District zoning and existing business district standards should be permitted as exceptions (if at all) through a rezoning approval process or in areas designated for highway commercial-type retail. At the very least, the Mixed-Use District standards should be the by-right standards for all development in the Central Business District (B-1) and Neighborhood Business District (B-2).

If the Mixed-Use Districts are going to continue to be optional districts, incentives for using them should be increased as the current height bonus will typically only yield one to two stories of additional development. Furthermore, current requirements for ground floor commercial uses is somewhat arbitrary since the corridors where

MIX LAND USES

these zones are applicable stretch for miles along major corridors in town. Walkable, mixed use districts are typically defined by nodes of development that are 1/4 to 1/2 mile wide.

Although the Mixed-Use Districts have not yet been used, one local developer commented that the commercial development requirements for the districts are unrealistically high. Additionally, Boone needs additional housing more than it needs additional commercial development and would benefit from commercial corridors that are mixed on a site-by-site basis (horizontally) with housing if not on a building-by-building basis (vertically). Perhaps incentives or requirements for residential development in these zones would be more appropriate than requirements for mixed-use buildings, which could be allowed and encouraged but not mandated.

ALLOW GREATER MIXED-USE IN OTHER DISTRICTS

Most of the Town's zoning districts are based primarily on a separation of uses, so most convenience retail and service uses are only allowed in the Business zoning districts. For example, retail is not allowed in Office/Institutional (O/I) Districts; convenience stores are not allowed in R-3, O/I, B-1 districts; restaurants, bars, night clubs are not allowed in O/I. This puts these uses and services out of walking distance of many office and residential districts, especially the higher density residential districts and precludes a true mix of uses.

While large scale commercial uses are rightly restricted in these kind of transitional districts, convenience retail or service uses (e.g. dry cleaners, restaurants) are very compatible with and typical in higher density residential, employment, and mixed-use areas. The typical Smart Growth approach to regulating uses is to allow a broader range of uses across various zones, but to limit the amount and intensity of such uses in each zone. For example, in the SmartCode, a model Smart Growth code document based on the Transect

CHAPTER 4: BUILDING TYPE REQUIREMENTS

4.5 SHOPFRONT BUILDING

Description: A small scale structure which can accommodate a variety of uses. A group of shopfront building can be combined to form a mixed-use neighborhood center. Individual shopfront buildings can be used to provide some commercial service, such as neighborhood store, in close proximity to homes. Office buildings, hotels and inns can be placed in shopfront buildings. The use permitted within the building is determined by the District in which it is located.

I. LOT REQUIREMENTS

<p>Minimum Height: 26 ft Maximum Height: 3 Stories (42 feet)</p> <p>Setbacks: Front (Maximum): 0 ft Sides: 0 ft Rear: 20 ft</p> <p>Frontage Buildout (Min.): 70%</p> <p>Parking and Vehicular Access: Primary vehicular access is provided using a rear lane or alley only. Off-street parking shall be located in the rear yard only. No curb cuts or driveways are permitted along the frontage.</p>	<p>Minimum Lot Width: 32 ft (Lots platted prior to 1995 - 16 ft)</p> <p>Encroachments: Upper story balconies may encroach into the right-of-way up to 3 feet with permission from the City.</p> <p>Accessory Structures: Side/Rear Setback: 0 ft</p>
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Mixed Use

Retail

Mixed Use

Belmont Land Development Code
Page 4 - 9

Form-based (or Smart Growth-based) codes focus on the form of development. They promote a mixture of uses in appropriate locations.

MIX LAND USES

concept, convenience commercial uses are allowed in transition zones (typically T-4 General Urban Transect zones, which roughly equate to neighborhood-scale, mixed-use districts). In this code, retail and restaurants uses are limited to one per block, on the ground floor level, at corner locations with major or collector streets and limited in size and scale. Given the current isolation of many of the high density residential and office districts in Boone, allowance for some mixture of retail services may increase the walkability of these areas.

USE FORM-BASED CODING

One of the best tools for comprehensively allowing for a greater mixture of uses is the use of a form-based code. Today, our principal tools of regulating the growth of our communities are zoning and subdivision ordinances (or a unified development ordinance, in the case of Boone). These tools, with their unyielding reliance on the strict segregation of uses, are highly inferior to historic codes in the creation of beautiful communities.

Modern form-based codes seek to prescribe the physical design of buildings and infrastructure while permitting a greater flexibility in the mixture of uses and activities. These codes recognize that many of our most cherished neighborhoods and downtowns were constructed during a period before zoning. As such, these areas have been much more adaptable to changes in demographics, retail trends, and technology (i.e. telecommuting) than new suburban subdivisions with rigid setbacks, narrow use requirements, and overbearing restrictive covenants that typically promote monotony and predictability.

10 ESSENTIAL DETAILS FOR FORM-BASED CODES

1. Focus on form, not use.
2. Build to the street.
3. Hide the parking.
4. Create great public spaces.
5. Streets should be pedestrian-scaled and multi-modal.
6. Encourage/require street level activity.
7. Building facades should generally have a base, a middle, and a top.
8. Money should be spent on the facade, not the parking lot.
9. Neighborhoods should be compact, pedestrian-friendly, and mixed-use.
10. Communities should be organized around neighborhoods, districts, and corridors.

2. TAKE ADVANTAGE OF COMPACT BUILDING DESIGN

VISION

- “Student housing as close to campus as possible”
- “Building up versus building out: more multi-story development”

STRENGTHS/ACCOMPLISHMENTS

- Architecturally Integrated Subdivisions (cluster) permitted
- Shared parking allowances, flexibility
- Some parking requirements below “market” standards
- Some parking requirements based on context (downtown, proximity to transit) and user groups (e.g. elderly)

OPPORTUNITIES/CHALLENGES

Need for increased Building height/density

- “Increased density will be the only way to make this sustainable, but need to sell idea – one of the biggest obstacles”
- “Interest in density bonuses”
- “Land intensity ratios in the UDO are hindrance to Smart Growth because of height restrictions; 6-7 stories would be ideal”
- “Need to make downtown more vibrant and build up, but council scared of tweaking heights”
- “Need infill, go vertical”
- “ASU would like to look into building higher, but need to rezone to university zoning to not be subject to setbacks or height requirements.”
- “Secondary height requirement kills projects”

Other Issues

- “Reduce setback and minimum lot size/width required”
- “Setbacks are too excessive; eats up a lot of the developable area. Especially with commercial properties: went from 4 ft. to 10 ft.”
- “Cluster homes, condos would be acceptable here and people would be really interested in them.”
- “Housing should be encouraged that is mass-transit and pedestrian friendly”



Multifamily development in Chapel Hill, NC.



Small lot residential development in Black Mountain, NC.

COMPACT BUILDING DESIGN

“. . .the weight of the evidence shows that, with more compact development, people drive 20 to 40 percent less, at minimal or reduced cost, while reaping other fiscal and health benefits.” (Ewing, et al. p. 14)

RECOMMENDATIONS

ENCOURAGE GREATER DEVELOPMENT DENSITY

One of the greatest and most obvious opportunities for Boone—as pointed out by numerous stakeholders—given the high cost of land, the sensitive environmental conditions, and the challenges of the High Country terrain is to use the most buildable land more efficiently by building more compactly and more vertically. Compact development can help Boone to achieve many of its other Smart Growth goals.

Higher-density development:

- Is a key element to creating walkable communities and providing more transportation options. (Walkable urbanism is said to become feasible at floor area ratios of 0.8. Typical auto-oriented suburban development has floor area ratios of 0.2 to 0.3. Outside of the B-1 district, Boone’s Intensity Regulations allow *maximum* floor area ratios of 0.48.)
- Can also contribute to a wider range of housing choices and more affordable housing options. (Smart Growth Network, 2005)

Increased density also benefits environmental goals and water resources. The U.S. Environmental Protection Agency (EPA) examined stormwater impacts from various different development scenarios. Their analysis concluded:

- The higher-density scenarios generate less stormwater runoff per house at all scales—one acre, lot, and watershed;
- For the same amount of development, higher density development produces less runoff and less impervious cover than low density development; and
- For a given amount of growth, lower-density development impacts more of the watershed. (EPA, 2006)

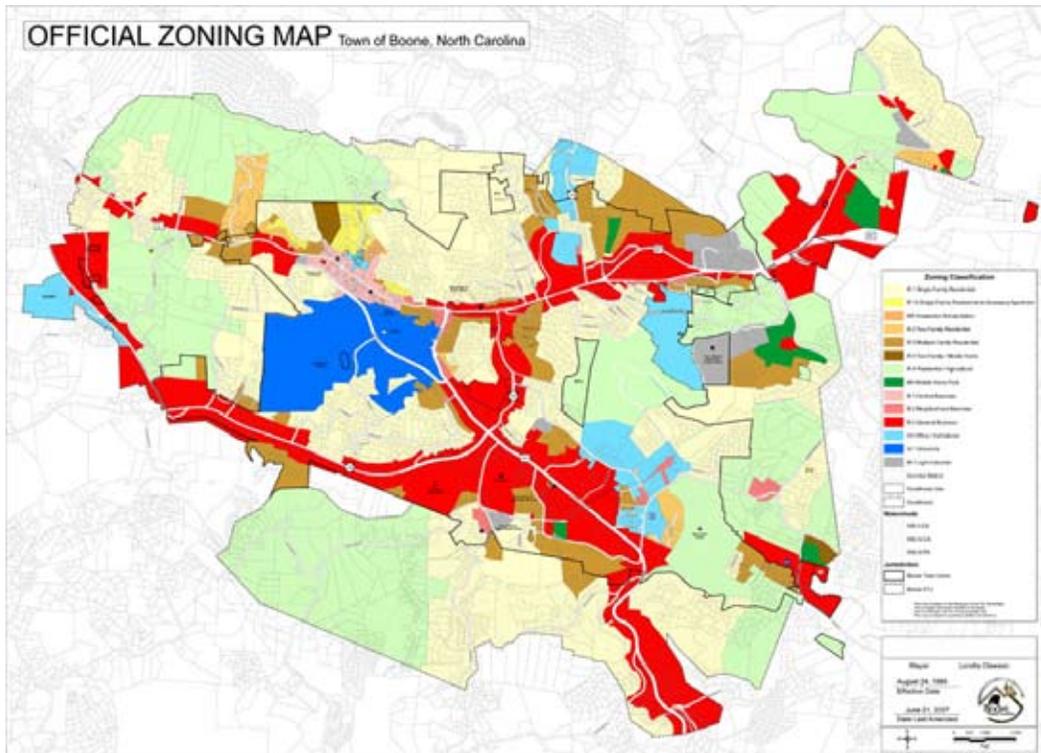
Research reports and stakeholder comments confirm that there is a demand for higher density, more compact development.

“[A.C.] Nelson projects that the [national] demand [over the next few decades] for attached and small-lot housing will exceed the current supply by 35 million units (71 percent), while the demand for large-lot housing will actually be less than the current supply.” (Ewing, et al, p. 19)

In a recent report prepared for the Town entitled *Multi-family Housing and Development Trends in the Town of Boone*, Dr. Donald Jud described the implications of the national trends in terms of demand for higher-density residential locally:

“As baby boomers move into their 50s and 60s and their children leave home, some boomers will choose to downsize to an apartment or condominium for a more carefree lifestyle. Others may decide to purchase or rent a multi-family home as a second vacation or semiretirement home. Because baby boomers represent the biggest demographic group in the country, even a small percentage choosing to move to multi-family homes will generate a substantial increase in demand. In Boone, the number of persons aged 55 and over is projected to grow from 1,480 to 1,952 between 2000 and 2010, an increase of 31.9 percent.” (Jud, 2005)

COMPACT BUILDING DESIGN



is a multi-block node consisting of multiple uses in an area designed to be covered on foot. Nodes of commercial development that occur throughout an area and are usually no more than 1000-1500 feet in radius are more conducive to pedestrian access. This report suggests that the Town consolidate commercial zoning into nodes that can become truly mixed-use districts by:

- Identifying through a community master land use plan appropriate commercial/mixed-use node locations and sizes, including mixed-use commercial center sizes from neighborhood-serving to regional centers;
- Rezoning or incentivizing the use of under utilized commercial property between identified nodes for other land uses, perhaps higher density residential, where appropriate; and,
- Allowing greater range of uses and intensity of development (coupled with pedestrian-oriented design standards) in the nodes to facilitate walkable, commercial centers.

Staff made very similar recommendations in their 2006 report prioritizing changes to the UDO.

CONCENTRATE COMMERCIAL DEVELOPMENT IN MIXED-USE NODES

Contrary to stated policies against “strip development” in the *Comprehensive Plan Update*, business district zoning is stretched out along all major roadways, promoting strip commercial land use patterns and providing more commercially zoned land than is likely to be absorbed by the local market for commercial uses. (17% of the Town’s area or more than 1,400 acres is zoned for business use.) Commercial development along arterials is oriented primarily towards automobile access: strung for miles, one lot deep, along major corridors to provide maximum visibility to passing cars. In contrast, the downtown, which developed in the pre-automobile era,

LOCATE HIGHEST DENSITY RESIDENTIAL NEAR EXISTING AND FUTURE MIXED-USE CENTERS

On a related note, this report strongly encourages the Town to rethink its current practice of permitting the highest density zoning in areas that may not have access to sufficient services, including roads, utilities, and emergency response, as well as walkable access to commercial services such as shops that can offer basic household goods. The best locations for high density development should be evaluated in the context of an overall community master plan effort.

The normal order of density progression is to concentrate people and activities closer together at the town center and other mixed

COMPACT BUILDING DESIGN

use centers to provide efficient service and encourage a healthy, vibrant pedestrian environment. While this is not the case in Boone, Town citizens and leaders have recognized this issue and included the following policy statement in the latest comprehensive plan update: “Factors in determining preferred locations for high density residential development shall include: close proximity to the University, employment or shopping centers; access to major thoroughfares and the transit system; the availability of public services and facilities; and compatibility with adjacent land uses.”

While it is beneficial to have a higher density residential district (R-3, Multiple-Family Residential), much of land zoned R-3 is located at the Town’s edges, some in hard to access locations, and too distant from existing centers of commerce, employment/education to promote walkability or even efficient transit access. In contrast (and due in part to historical development patterns), the Town’s least dense residential districts are located closest to downtown, the University, and other concentrations of commercial activity. This results in more cars traveling further distances to access services and employment/education opportunities. This imbalance in residential density also extends resources (such as emergency response, police, sewer/water, etc.) disproportionately from the center of town making their delivery, maintenance, and expansion less efficient and, therefore, more expensive. Furthermore, while some people can still walk from the lower density areas to the downtown area and other commercial nodes, there are significantly fewer potential patrons that can take advantage of the services and destinations in these areas.

REDUCE SETBACK/DIMENSIONAL STANDARDS

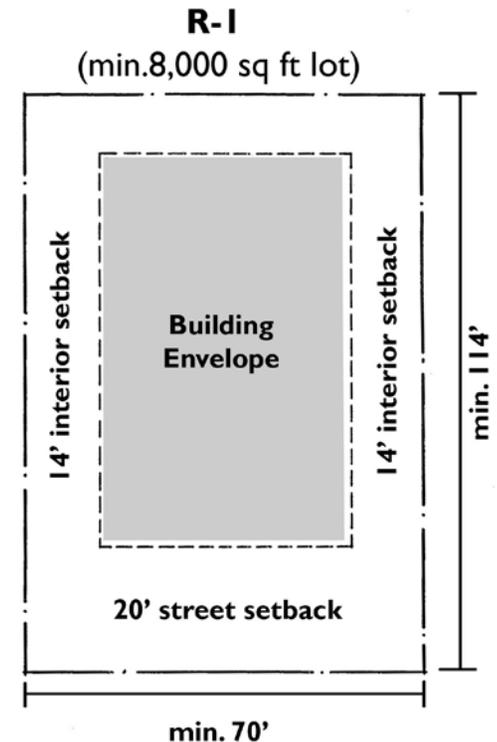
The current UDO’s Schedule of Land Use Intensity Regulations represent a major obstacle to Smart Growth development in Boone and specifically compact development. With the exception of the B-1 standards, the requirements are overly complex, redundant, not context-sensitive or context-dependent, very suburban in

orientation, and work against many of the environmental and Smart Growth goals that the community has articulated in its policy plans. This audit suggests considering the following approaches in revising the current standards:

All of Boone’s primary zoning districts are governed by minimum lot sizes. For example, in the R-1 district, the community’s single largest zoning district, the minimum lot size for a single family structure is 8,000 square feet, yielding an effective density of 5.5 units per acre. This minimum lot size also carries with it certain minimum lot dimensions:

- Minimum Lot Width: 70 feet
- Minimum Street Setback: 20 feet
- Minimum Interior Setback: 14 feet

This limited approach to setbacks, in general, provides little room for the preservation of natural features within the prescribed building envelope and organizes the garage on the site in close proximity to the front facade. In truth, the front yard is the least used portion of a typical single family house lot. By permitting a reduction in front setbacks—such as 10 feet instead of 25 feet—house lots can increase the private, useable space of the rear yard as well as the building envelope and increase pedestrian-friendliness of the street by bringing buildings closer to the sidewalk. This proximity creates a greater sense of enclosure and security and enables people walking by to interact easily with people in the semi-public spaces of front porches and front yards.



Existing R-1 dimensional standards provide little room for preservation of natural features and are not compact or pedestrian-friendly.

COMPACT BUILDING DESIGN

Furthermore, interior or side setbacks are too large in many cases for pedestrian-oriented development. In appropriate contexts in the Town, detached homes and buildings can be as close as 6 feet apart before a fire-rated wall is required. In other contexts, attached residences and buildings should be allowed and encouraged.

Finally, the use of prescribed density via lot sizes functions as an impediment to flexible subdivision design and appropriate development form, which is especially important in the context of the challenging topography in Boone. This approach limits creativity in neighborhood design and creates “cookie cutter” subdivisions based on the minimum lot size. It also limits the ability to preserve open space in subdivisions by encouraging platting of every possible portion of a site.

Boone can also reduce minimum lot widths and minimum lot sizes generally. Practically speaking, detached, single-family homes can be built on lots as narrow as 24 feet (with the use of alleys) and at densities of up to 12-18 units per acre.

Reducing required minimum lot size, lot width, and setback dimensions can also encourage development of townhouse, multi-family, and small lot single family dwellings on infill lots in or near downtown and identified mixed-use nodes. This will place higher density areas within walking distance to needed amenities and services.

USE DENSITY-BASED DISTRICTS

A better and more flexible tool than minimum lot sizes is the application of maximum permitted density. Boone currently applies this approach for Architecturally Integrated Subdivisions (also known as and proposed to be called Cluster Subdivisions). Unfortunately, these types of subdivisions require special approval instead of being allowed by-right. Density-based zoning achieves the goal of limiting development density by district, but permits



Detached, single family homes such as these in Davidson, NC can be built on lots as narrow as 24 feet and at densities of up to 12-18 units per acre.

variety in lot sizes and housing types based on market conditions and topographic conditions. Base densities can aid in neighborhood design by permitting (but not necessarily requiring) a variety of lot sizes within close proximity while regulating the actual number of units that impact surrounding infrastructure.

UPDATE DENSITY & HEIGHT REQUIREMENTS

In addition to minimum lot sizes and minimum dimensional standards, Boone’s UDO includes maximum Floor Area Ratios (FAR), and minimum ratios for Open Space, Liveability Space, and Recreation Space which must be included on each lot, as well as maximum height limitations. The UDO’s Schedule of Land Use Intensity Regulations also includes various restrictions on the mass and height of buildings. When combined with the relatively large minimum lot sizes, these regulations result in a land use pattern that is inefficient and not at all compact.

COMPACT BUILDING DESIGN

In general, the density and height requirements could be simplified and made more context-sensitive, based on a land use plan and the location in Town. For example, instead of FAR the Town should consider maximum heights and maximum pervious areas based on a development's location in a more urban or more rural context.

Height limitations could be revised to allow for greater density and less separation between buildings. For example, the current setbacks based on height could apply only to the portions of the building that exceed the allowed primary height instead of the entire building. Also, measuring heights in stories versus a base height allows for variation in building configurations.

Generally, consideration of increased allowable building heights should be considered in identified mixed-use centers and corridors. (The *Central Business District Analysis and Recommendations* recommends raising the height allowances in the B-1 district. This may also be appropriate in other identified mixed-used development nodes.) A *minimum* number of stories (or minimum FAR) may be appropriate in some areas, including downtown, to achieve the desired building and density pattern. Recent developments in Boone and increasing land costs show that there is a local market for greater building density.

USE DENSITY BONUSES

Communities across the country are using density bonuses as a way to achieve community objectives while at the same time increasing development rights. Boone has begun to use this tool with the Mixed-use Districts and to some extent in the density allowance for subdivisions that publicly dedicate open space (although this could go further to actually provide additional density beyond the maximum allowed in the district). There are numerous other objectives for which density bonuses can be offered as incentives and this report suggests that Boone consider all of them:



Recent developments such as the AF building on US321 show that there is a local market for greater building height and density.

- Provision of affordable housing
- Provision of publicly available parking
- Provision of publicly available open space
- Provision of public art
- Conservation of natural areas beyond what is required
- Achieving certain green building standards, including reduced water consumption and advanced stormwater management
- Historic preservation of buildings and/or facades

REVISE PARKING STANDARDS

Parking requirements are one of the most ubiquitous deterrents to compact development and walkability in American communities. In his book *The High Cost of Free Parking*, Economist Donald Shoup compares the requirement for and the provision of “free” parking at almost every location in America to a rental apartment where the utilities are *required* to be included in the rent. This requirement

COMPACT BUILDING DESIGN



Acres of unused asphalt at one of Boone's shopping centers.

gives the tenants no incentive to curtail their use of electricity or water. In fact, the tenants have an incentive to use as much of these commodities as possible since they will incur no additional cost to do so. The same is true for motor vehicle parking. Since almost everywhere that we take our car will have a free place for us to keep it, we have little incentive to consider other options for getting there:

And with ubiquitous free parking, we have a cheap, convenient, direct, sedentary connection to almost every point in the city. . . . Public Transportation increases the number and variety of destinations that pedestrians can reach, but parking requirements reduce pedestrian access [since pedestrians typically have to find their way through fields of parked cars]. No wonder we rarely walk anywhere. (Shoup, p. 62)

Area devoted to parking is typically more than double the area

devoted to building on commercial properties and studies across the country have shown that typical commercial parking lots are grossly overbuilt, sometimes by as much as 50% or more. With the typical parking space requiring approximately 350 square feet when aisles and driveways are included, the area devoted to automobile storage usually exceeds the amount of square footage devoted to a typical office employee and can equal the amount of living space per person for small dwellings, especially multi-family units.

Boone has made some progressive steps in terms of minimizing the amount of required parking. For example, the Town currently requires parking below national standards for peak demand for some uses (e.g., 3.3 spaces/1000 sq ft for retail; typically peak demand is estimated at 4 spaces/1000 sq ft). This allows developers rather than arbitrary standards to determine if additional parking should be provided. Also, the Town has adopted differing parking requirements for different areas. For example, in the B1 district, in the Mixed-use Districts, in areas with proximity to transit within the Mixed-use Districts, and for some use types (e.g., housing for the elderly), parking requirements are appropriately reduced (although there are opportunities to reduce requirement even further). This reduction allows more land to be devoted to usable building square footage and less to storage of automobiles, most of which sit idle for 95% of the day.

At the same time, the Town has some parking requirements that are beyond market norms (e.g., 10 spaces per 1000 square feet for restaurants; 6.6 spaces per 1000 square feet for colleges and universities). In general, Boone's parking standards are overly suburban and are not appropriate in every context.

There are numerous strategies to appropriately minimize parking and maximize buildable areas. Some of these are discussed in more detail later in the audit report. A combination of these strategies will be required to maximize parking and land use efficiency in Boone.

COMPACT BUILDING DESIGN

Strategies to reduce parking impacts include:

- Reduce minimums; apply maximums.
- Require less parking in walkable, mixed-use areas.
- Require less parking in areas with transit service.
- Require less parking for residential uses designed for seniors, low-income, or disabled individuals.
- Count on-street parking towards minimum required.
- Price parking in appropriate areas such as downtown.
- Provide density credits for publicly available parking in downtown and other mixed-use districts.
- Provide incentives for greater use of shared parking.
- Institute neighborhood parking management districts to reduce overflow parking.
- Require bicycle parking.
- Encourage or require transportation demand management (TDM) measures for multi-family, commercial, and employment/university uses.

REVISE SCREENING/BUFFER STANDARDS

The current UDO devotes nearly 10 pages to the requirements for screening/buffering between land uses. Buffers do have their place, especially when it comes to separating heavy industrial and other potentially noxious uses from residential development. However, a buffer requirement is a blunt instrument and a suburban standard, applied too heavily and broadly in too many contexts. Boone and most other communities have good examples of existing office, institutional, and compatibly scaled multi-family development that function very well without screening. Downtown is a perfect example.

While the screening requirements do provide beneficial greening to new development, they also increase the distances between land uses and restrict the ability to create compact, mixed-use centers of activity. Both of these impacts negatively affect pedestrian access

to goods and services because they have to travel further to get to destinations that are so severely separated by buffers and setbacks.

Context-based building and site design standards are a much more precise and appropriate way to deal with land use compatibility. Boone's downtown, the most compact, dense, mixed-use area in the Town's jurisdiction—including institutional, retail, office, and residential uses—could not have been developed if each separate use was required to provide a buffer between “incompatible” uses.

This report strongly encourages the Town to limit the applicability of the buffer standards. Instead, if tree preservation, reduced stormwater runoff, and more attractive streetscapes are desired, we urge the Town to devote more emphasis to:

- detailed tree preservation standards (the UDO contains some good incentives currently);
- effective low impact design requirements to reduce stormwater impacts;
- and building, site, and streetscape design standards that enable relatively seamless transitions between land uses through building orientation, bulk, scale, and type.

Specifically, like uses do not need to be screened. Uses in areas intended for mixed-use development do not need screening. (*Central Business District Analysis and Recommendations* recommends creating landscaping requirements specific to the CBD.) If the intention is to provide greenery in new development, landscape requirements don't have to be limited to perimeter of property. Finally, where planted areas are to be required, they should be required or incented to be designed to serve a stormwater water retention function as well as an aesthetic purpose.

3. CREATE A RANGE OF HOUSING OPPORTUNITIES AND CHOICES

VISION

- “Provide a variety of housing choices”
- “Increased supply of workforce housing”
- “More duplexes, not apartments”

STRENGTHS/ACCOMPLISHMENTS

- Draft text amendment for incentive for supplying water to affordable housing projects

OPPORTUNITIES/CHALLENGES

Affordable Housing

- “Need to ensure that Boone does not become gentrified and exclusive. This cannot be used to justify apartment slums that are cheap but compromise other development standards.”
- “Provisions for affordable housing, especially for young families.”
- “ASU having difficulty recruiting professors because of affordable housing issue.”
- “Affordable housing: Hard to provide workforce housing”
- “Boone mixed-use apartment are \$595,000; a lot of parents of affluent college students buy children a place, hold onto it for 4 years and then sell it for a profit.”
- “Affordability affects the students, too. In some cases its cheaper for students to get a bunch a kids to live in a single-family home.”

Housing options

- “Need to get creative- such as an environmentally friendly dorm that a private developer would build where students vowed to not to bring a car and you built it with no parking.”
- “Need to consider senior housing with aging population in Boone, a lot of retirees.”
- “Accessory dwellings okay with conditions”
- “Interest in accessory housing; requirements in R1A are too difficult.”
- “Need more affordable housing, duplexes- not more apartments.”
- “Students are more diverse these days- older students, some with families”

2nd home market

- “2nd home market pressures on affordability”
- “Huge growth in 2nd homes, a lot of upscale, gated communities, which is driving up the price of homes around the county and the ETJ.”
- “Need to tax 2nd homes higher.”
- “50% of tracts, 45% of land is owned by people outside the area”

Other Issues

- “Certain neighborhoods are transitioning from retirees to students”
- Nearly 70% of homes renter occupied- estimated 4,600 occupied housing units in Boone as of 2004; of which almost 3,200 are renter occupied (Jud, p 9).
- Median home value is around \$270,000 in Watauga/Avery County

HOUSING CHOICES

RECOMMENDATIONS

REVISE ACCESSORY APARTMENT STANDARDS

The benefits of accessory apartments are widely recognized. The traditional mother-in-law suite/granny flat provides a place for relatives to live close to family while maintaining some sense of privacy. When used as an office for home occupations, it provides an option for today's small businesses, virtual offices, and telecommuters that does not intrude on family space.

Accessory units may also be rented to non-family members. In doing so, these units provide an income stream that helps to offset the mortgage on the entire property, a significant benefit given the high cost of housing in Boone. Additionally, an accessory apartment provides a unit of housing that is often more affordable than conventional apartment complexes. They can provide an additional sense of security for the renter and the primary home owner. Finally, because accessory apartments are provided in neighborhoods in small increments, they are much more acceptable than concentrations of rental units.

Currently, the largest zoning district by land area (R-1) in Boone does not allow for Accessory Apartments. (Recently, the Boone Affordable Housing Task Force recommended a change to this restriction. Audit stakeholders who live in Boone's single family neighborhoods indicated that they would be in favor of this change.) Meanwhile all other residential districts, including the very low density Residential/Agricultural (R-A) district, allow accessory apartments by-right. It is excellent that the Town has the Single Family Residential with Accessory Apartment (R-1A) district, however, the

locations and the limited extent of this district make its impact nominal at best.

ALLOW DUPLEXES AND TOWNHOMES MORE WIDELY

Duplexes are common in single family neighborhoods around the country and are compatible with single family uses. They were mentioned by stakeholders as a desirable housing type for Boone. Like accessory apartments, duplexes provide an affordable and flexible housing option for homeowners and families. The Town should consider allowing them by-right in all districts that allow residential uses. Duplexes are not allowed currently in the R-1, R-1A, R-R zoning districts.

Townhomes are compatible with two-family homes or duplexes (townhomes or row homes are essentially an extension of the side-by-side duplex building type). However, townhomes are not currently allowed in R-2 (Two Family Residential) districts. Given the location of the existing R-2 districts near existing concentrations of retail and employment destinations—including the hospital complex—townhomes would be an appropriate building type to provide compatible, higher density in these areas.

REMOVE BARRIERS FOR ACCESSORY APARTMENTS AND DUPLEXES

Accessory apartments and duplexes are further limited by the UDO requirement in Section 202, Gross Land Area, subsection [b]: "Two-family conversions, primary residences with an accessory apartment and duplexes shall be allowed only on lots having at least one and one half times the minimum gross land area." This requirement is a disincentive for accessory dwelling



Accessory apartment over detached garage



Duplexes (or tri-plexes, as shown above) are compatible with single family building types.

HOUSING CHOICES

units, redevelopment and infill, and greater housing density. In fact, one of the benefits of these housing types is that existing lots can be used more efficiently with the same amount of land area. The Town should consider removing this requirement all together. At the same time, the Smart Growth principles of compact building design and providing greater housing opportunities needs to be balanced with the Town and neighborhoods' goal of minimizing college rentals in low-density, residential areas. Restrictions on the rentals of duplexes, for example, could be similar to the proposed restrictions on rentals of accessory apartments: one side of a duplex cannot be rented unless the unit owner resides in the other side.



Affordable townhomes in a mixed-use development in Chapel Hill, NC.

ALLOW MULTIFAMILY HOUSING BY-RIGHT WITH CONDITIONS

Currently, only up to 12 units of multi-family residential are allowed in one development before a Special Use Permit (SUP) is required. While this requirement has the benefit of allowing the Town to participate in determining the most appropriate locations for higher density residential development, it provides little predictability for developers and does not provide incentive or clear direction for building multi-family in the most beneficial areas for Boone.

The *Comprehensive Plan Update* provides good general Smart Growth criteria for multi-family development: “close proximity to the university, employment or shopping centers; access to major thoroughfares and the transit system; the availability of public services and facilities; and compatibility with adjacent land uses.” These principles could be further detailed into more measurable standards (1/4 to 1/2 mile instead of “close proximity,” for example) and, in combination with a land use plan, used as the basis for allowing multi-family by-right in certain districts if they meet the conditions. (*Town of Boone Central Business District Analysis and Recommendations* already suggests not requiring an SUP for multi-family uses in B-1 if lower level commercial uses are proposed.) As a model, Boone could investigate the effective set of criteria for high density housing that the City of Charlotte uses in determining the appropriateness and density of multi-family housing in various locations.

ALLOW COTTAGE HOUSING DEVELOPMENT (CHD)

Cottage housing is a residential form of development that has gained acceptance in the Pacific Northwest in recent years as response to rising land costs and the desire for different housing options and more compact designs for detached homes. This housing type has also received national attention with the Katrina Cottage prototype developed in response to the need for small but efficient, affordable and attractive homes that could be built on small spaces in a short

HOUSING CHOICES

amount of time for victims of the gulf hurricanes. These cottages were conceptualized as an attractive and permanent alternative to trailers or traditional manufactured homes. These cottages are now available as kits from major distributors such as Lowe’s and provide elegant small, expandable spaces sized from a few hundred square feet to just over a thousand.

According to the Smart Growth Network, “Cottage houses are single-family detached units, usually less than 1,000 square feet in size, that incorporate many of the amenities associated with conventional single-family detached housing. Because of the style and size of cottage houses, developers can cluster cottage housing onto smaller parcels of land without sacrificing feel and character of detached housing.” (Getting to Smart Growth II, p. 13)

Boone could promote this type of housing by amending zoning requirements to allow cottage housing developments with design requirements in certain districts; or by encouraging individual infill cottage houses by-right in certain districts by permitting small enough parcels to make them affordable.

Source: Ross Chapin, AIA, cottagecompany.com



Eight cottage houses form a cottage housing development in Shoreline, WA.

Designer	Eric Moser
Bedrooms	1.5
Bathrooms	1
Ceiling height	Varies
Conditioned living area	697 sq. ft.
Overall dimensions (including porch)	33'-6" long x 24'-0" wide
Notes	A vaulted ceiling in the living room and sleeping loft define the open feeling of this plan, which is ideal for a starter house or vacation cabin.



Source: www.cusatocottages.com

Cottage house model available as a kit from Lowes.com.

WORK WITH UNIVERSITY TO MAXIMIZE ON-CAMPUS HOUSING OPTIONS

The single biggest demand generator for multi-family housing in Boone is students from the University. The current campus plan will only accommodate up to 50% of the existing and projected student population. Campus officials who participated in the audit reported that recent trends indicate that more students would prefer to live on-campus, but that current campus plans could only accommodate another 800 residents. This means that nearly 7,000 ASU students will look elsewhere in the area for housing.

Housing for ASU students is a complex issue with far reaching implications both positive and negative for transportation, municipal revenue, neighborhood conservation, and many other community issues. However, to the extent that the Town can increase allowable building intensities for residential development at the University by increasing FAR’s, reducing required open space, recreation, and liveability ratios, reducing parking requirements, and modifying other related requirements, the more opportunity the University will have to provide housing choices on campus. Changes in regulations should be considered in the context of University and Town masterplans so that regulations can be tailored to the various contexts around the University’s edges. For example, building height

HOUSING CHOICES

allowances could differ based on adjacent land uses and viewsheds at different locations around the campus.

INVESTIGATE CAR-FREE HOUSING ALLOWANCES

An Audit stakeholder made the outstanding suggestion of car-free housing as an option worth exploring in Boone. Car-free housing has found wide-spread application in Europe and in intense urban areas with many transportation options such as New York City and is beginning to be considered and implemented in other parts of North America. Car-free housing is residential development (typically multi-family) intentionally built without any dedicated parking. The notion is that by removing the costs of providing parking from the cost of the housing, significant savings can be had by the developer and the residents. Developers are able to build more housing and/or residential amenities instead of providing parking. Residents either do not have cars due to income or physical limitations or choose to live a car-free lifestyle for a variety of reasons. Residents are required to be car-free or at least not to keep a car within easy proximity of the residence. They are also restricted from things such as neighborhood parking permits and are educated about other local transportation options. Such developments may promote or subsidize resident participation in subscriber-based car sharing programs.

One of North America's most famous university towns, Berkeley, California, has permitted several car-free residential developments and a local group is currently working on ordinance amendments to allow additional car-free housing with conditions. Boone provides another likely location for successful car-free housing due to the university population and the significant number of car-free households (7.24% in the 2000 Census) and the number of non-car commuters to work (21.28% in the 2000 Census, 6th highest in North Carolina likely due to the high number of people who walk to the University).

TAX REBATES FOR HOUSING IN ELIGIBLE AREAS

The Town can also direct the location and the type of housing by providing tax incentives or other financial incentives for housing in identified locations in the community. For example, Boone could offer tax rebates or reductions for multi-family housing in the commercial corridors or for affordable housing developed in identified locations.

CONSIDER INCLUSIONARY HOUSING PROVISIONS

With affordable housing being one of the critical issues facing Boone, the Town has begun to discuss the option of inclusionary housing requirements. While the affordability issues Boone faces are especially acute and unique, communities across the nation are facing similar problems and considering similar solutions.



Affordable owner-occupied units are interspersed with market rate units in this development in Davidson, NC.

HOUSING CHOICES

According to Noah Brunick, a land use attorney writing on behalf of the American Planning Association:

“Solutions to the [affordable housing] crisis remain elusive when land and housing costs are so high, when federal funding for housing is at a 30-year low, when state funding for housing has failed to make up the difference, and when local funds are limited. In this environment, zoning for affordability quickly becomes a popular and immediate option.” (p. 2)

Inclusionary housing regulations are designed to mandate or incent the provision of housing for people at all levels of the income spectrum. Such regulations are meant to be inclusive rather than exclusive, which is the tendency of most zoning standards (either by default or by design) if there is no intentional effort to provide affordable housing.

Inclusionary housing provisions can range from a requirement that a percentage of new housing units be affordable, (such as is required in Davidson, North Carolina and many jurisdictions across the nation) to incentives for providing affordable housing including density bonuses, tax rebates, expedited development review, and special consideration for government provided services or land. (In this regard, Boone is currently considering the provision of water and sewer service as an incentive to multi-family developments that include affordable housing.)

4. CREATE WALKABLE COMMUNITIES

VISION

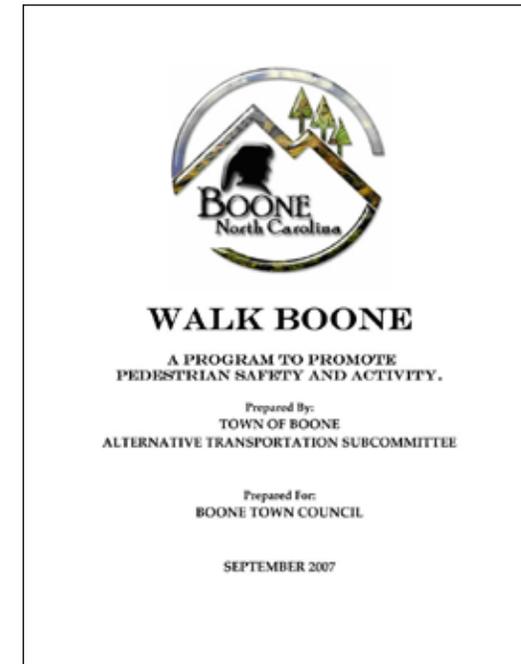
- “Create a walkable community”
- “Create a pedestrian friendly downtown”
- “Improved streetscape (lighting, landscaping, etc.), pedestrian friendliness, and sidewalks that connect to other parts of town.”

STRENGTHS/ACCOMPLISHMENTS

- “Sidewalks: being built as capital projects; now required for most new development”
- “Walk Boone”
- “Narrow neighborhood street standards (18-20’)”
- Traffic calming on neighborhood streets

OPPORTUNITIES/CHALLENGES

- “Pedestrian facilities are abysmal; one of the least walkable, bikeable places”
- “Need to encourage more walkable community, especially with traffic and parking problems.”
- “Jay walking on River Street a big issue at ASU; needs solutions besides pedestrian bridges because they are controversial.”
- “Sidewalks that are against street with no buffer aren’t pedestrian friendly either.”
- “Very difficult to walk across the street: if you need to cross streets. . .you put your life in your own hands.”
- “[Town] would like to complete sidewalks along both sides of 105 out to city limits. Then Poplar Road, also Deerfield Road.”



Waiting to cross the street in walkable downtown Boone.

WALKABLE COMMUNITIES

RECOMMENDATIONS

The importance of walking in Boone is evident from the priority placed on this mode of transport in planning efforts dating at least to the 1995 *Alternative Transportation Plan* and the more recent Walk Boone effort. Census data shows that Boone has one of the highest rates of pedestrian commuters of any community in the state, most likely due to the number of students who walk to ASU. Boone also has good basic requirements for sidewalks in its UDO and is spending money on sidewalk and other pedestrian improvements in neighborhoods and downtown. However, much remains to be done: the overall pedestrian environment in Boone was accurately described by one stakeholder as “abysmal.”

REVISE SIDEWALK AND STREETSCAPE REQUIREMENTS

Boone has made a good start with sidewalk requirements based on street type. However, these requirements and the general streetscape requirements need to be improved if the Town is going to become a more walkable community.

- Sidewalks should be required in new developments based on a number of objective standards such as density, street type, and development context (rural versus urban). In some very low density and rural developments, sidewalks may not be necessary.
- Sidewalks should be required on both collector and arterial streets in the urbanized area. Sidewalks are currently only required on one side of collector streets.
- The sidewalk requirement for streets abutting new subdivisions is good. However, developers should also be required to build or improve sidewalks and other streetscape amenities in the public right of way for all development projects except individual single-family homes. Alternatively, they could be required to reserve right-of-way and make a payment-in-lieu.
- Minimum sidewalk widths should generally be 5 feet. (This width has been recommended by staff in a January 2005 memo

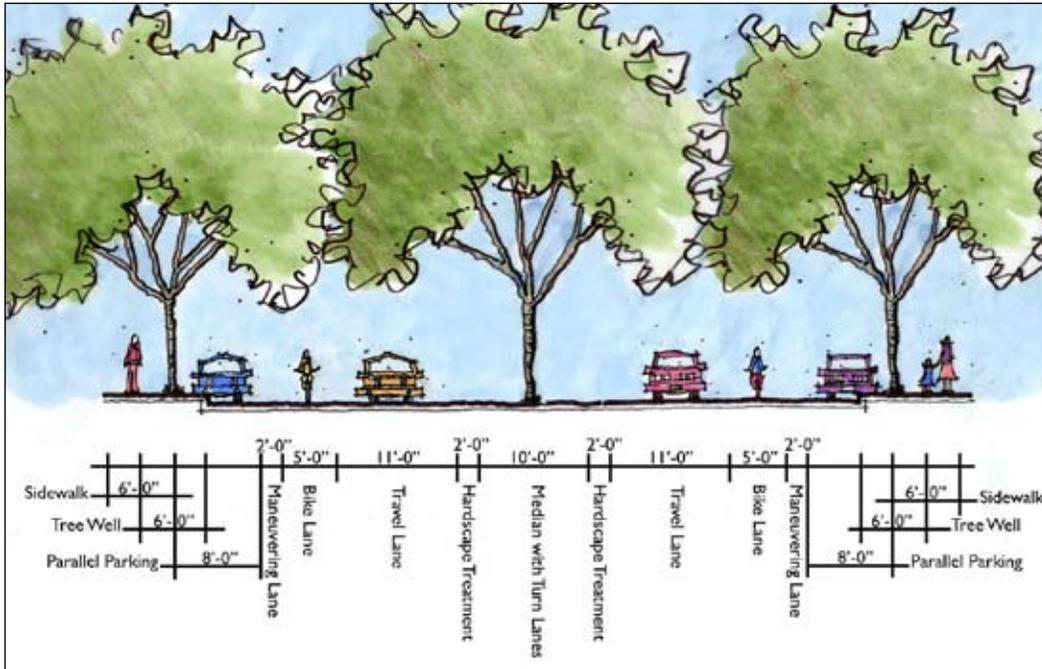


Streetscapes like this one along US 421 contribute to Boone’s “abysmal” pedestrian environment.

- regarding proposed changes to the subdivision regulations.) Five feet is the space required for two adults to walk side by side.
- In higher density and mixed-use developments and along collector and thoroughfare streets sidewalks should be on both sides of the street with a width of six to twelve (6-12) feet based on use type.
- In the context of a Town-wide master plan or corridor or small area plans, streetscape plans and sections should be developed for all of the major corridors. These sections should provide the basis for streetscape requirements for new development.

Additionally, standards for planting strips between sidewalk and curb should be considered for Boone, especially for collector streets and higher order streets. Pedestrian-friendly streetscapes, particularly

WALKABLE COMMUNITIES



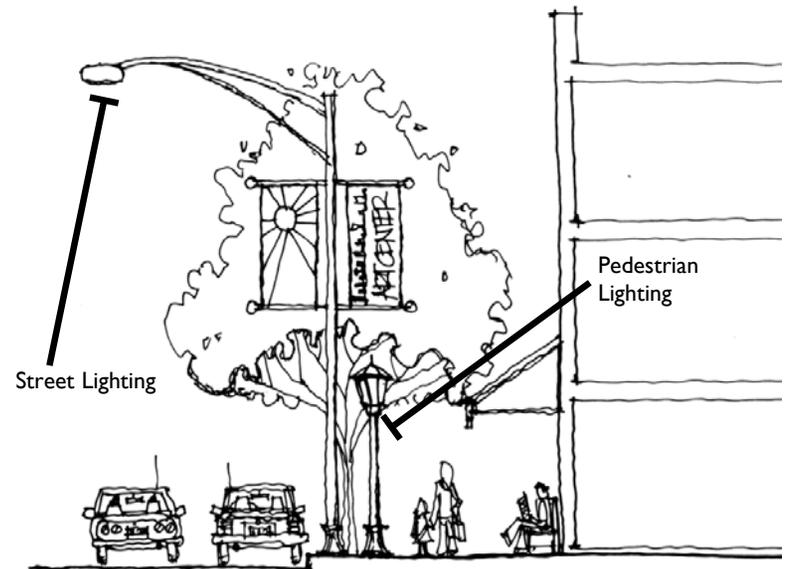
Thoroughfare streetscape concept developed for a Spartanburg, SC area plan

on streets with higher traffic volumes and commercial uses, should include the planting of canopy trees such as oaks and maples at a regular interval. There is no requirement for such in the current regulations. Street trees are valued because they provide, among other benefits:

- Shade for both parked cars and pedestrians on the sidewalk
- Traffic calming (speed reduction) for motor vehicles
- Protection of pedestrians from moving cars
- Additional retention of stormwater
- Tree canopy to mitigate the impacts of ground-level ozone
- Improved aesthetics

To accommodate the trunk and root system of the street trees the planting strip between the curb and the sidewalk should be a minimum of 6 feet in width and preferably 8 feet for canopy or shade trees. The consistent planting of trees within the right-of-way ensures a long term public amenity, provide protection to pedestrians, and creates a consistent visual aesthetic along a corridor regardless of the phasing of the development.

The intent statement in the UDO's Section 261, Lighting Requirements, supports providing lighting for pedestrian areas, however, it provides no definitive standards for such. Details on the level of illumination, and the type, design, and location of lighting for pedestrian areas should be provided. In general, pedestrian scale lighting should be no taller than 18 feet above the sidewalk. Such lighting is especially important at intersections and along key pedestrian routes.



Pedestrian-scale lighting is a crucial part of the streetscape, especially at pedestrian crossings and along key pedestrian routes

WALKABLE COMMUNITIES

ADOPT A PEDESTRIAN NETWORK REQUIREMENT

Town officials should consider an amendment to the UDO to require that all new development or expansions to existing development provide sidewalk connections from the buildings on the site to the existing pedestrian network, including surrounding sidewalks and trails.

SUPPORT SAFE ROUTES TO SCHOOL INITIATIVES AND INFRASTRUCTURE

Not only are walking and biking healthier ways for children to get to school, recent research has also shown them to be far safer than getting to school by passenger car. In a recent paper entitled “How Risky is the Commute to School?,” Anne Dellinger and Laurie Beck show that “the risk of death or injury on the trip to school varied by mode of transportation—with the highest death and injury rates for children in passenger vehicles.” According to this research, school buses appear to have the lowest rates of death and injury for children’s journey to school, followed closely by pedestrian and bicycle modes.

This audit recommends that the Town work with the school district to institute transportation policies that promote and encourage the use of active modes and to dismantle policies that discourage walking and bicycling. At the same time, audits and priority implementation of pedestrian infrastructure should be completed near schools. NCDOT has funding available for infrastructure improvements within 1/2 mile of schools.

Additionally, the Town and schools can work cooperatively to design walking awareness and promotion programs in schools. Such programs are being successfully implemented at schools around the nation and the world. The Town of Davidson, North Carolina, in cooperation with the local elementary school, police, and volunteer parents and citizens, recently began a monthly Walking Wednesday



Source: Town of Davidson, NC

Students and parents walk and bike to school during Davidson, NC’s monthly Walking Wednesday event.

program to promote walking and biking to school. During the first two months of the 2007/2008 school year, over 400 students participated each month.

MAKE PEDESTRIAN CROSSINGS SAFER

One of the key issues noted in the Walk Boone report was the need for enforcement of pedestrian crossing laws. However, until more pedestrian-friendly crossings (intersections and midblock refuges) are provided in Boone, pedestrians will continue to cross illegally as formal crossings are too far apart or because existing multi-lane intersections are often less predictable places to cross than mid-block locations. The Town can work with NCDOT to develop detailed design measures to increase pedestrian comfort and safety especially at major street crossings identified in the *Alternative Transportation Plan* and the Walk Boone report.

WALKABLE COMMUNITIES

Source: www.pedbikeimages.org/Dan Burden



Four-lane street crossing with pedestrian refuge and signage in Kirkland, WA.

Source: www.pedbikeimages.org/Dan Burden



Citizens conducting a walkability audit.

Specifications should include high-visibility crosswalk markings, reduced turning radii, improved curb ramps, pedestrian/bicycle activated signals, mid block crossings, and pedestrian islands where right turn lanes are present. Construction details and requirements for curb ramps on the tangent sections of a curb radius (each side of the radius) should be included. To the extent possible, the Town should work with NCDOT to fund such improvements, but Boone may have to participate in such funding to expedite the process.

LOBBY NCDOT FOR OTHER WALKABLE FACILITIES

Recently, Boone has been working with the North Carolina Department of Transportation (NCDOT) on the design of the planned US 421 widening near downtown. The Town should continue to lobby NCDOT for pedestrian-friendly facilities for all NCDOT projects, especially the US 421 widening including: low design speeds and posted speeds, pedestrian refuges, small curb radii, separation between roadway and sidewalks (preferably with street trees), bike lanes, sidewalks that are at least 6 feet wide on thoroughfares, restricted driveways and medians, and pedestrian friendly intersections (including right turn islands and pedestrian countdown signals).

CONTINUE WALKABILITY AUDITS

The walkability audits that were part of the recent Walk Boone project are a great tool for identifying critical pedestrian infrastructure needs. Boone and local citizen and neighborhood groups should continue this effort in other parts of Boone with a special focus on neighborhoods, commercial areas, and areas around schools. The findings can be mapped as part of the ongoing inventory of existing and needed improvements.

PEDESTRIAN-ORIENTED DESIGN STANDARDS

While pedestrian-oriented transportation infrastructure is imperative for a walkable community, just as critical—if not more so—is the development of land use patterns and building and site design that promote walking. Compact, mixed-use land use patterns are a crucial first part of the equation. At a more detailed level, building and individual site design must also orient to the pedestrian.

This audit recommends a community-wide approach to pedestrian-friendly design versus design standards that only apply to specific areas. However, commercial centers and the central business district require special design standards because of the nature and intensity of pedestrian usage in these contexts. For example, sidewalks that can accommodate larger groups of pedestrians and sidewalk dining or other outdoor commercial activity; pedestrian scaled lighting; landscaping and open space appropriate to a urban setting, such as trees in grates; and pedestrian-oriented building entrances and facades are all design details that should be specified for these types of areas. For a walkable, urban mixed-use environment, a street also needs low travel speeds, on-street parking, and street trees. These details should be included in the development regulations for such areas.

Boone has made a great start with such design standards in the recently adopted Mixed-Use Districts, including requirements for:

- Pedestrian entrance at the street
- Parking behind buildings
- Minimum amount of windows on the ground floor

WALKABLE COMMUNITIES

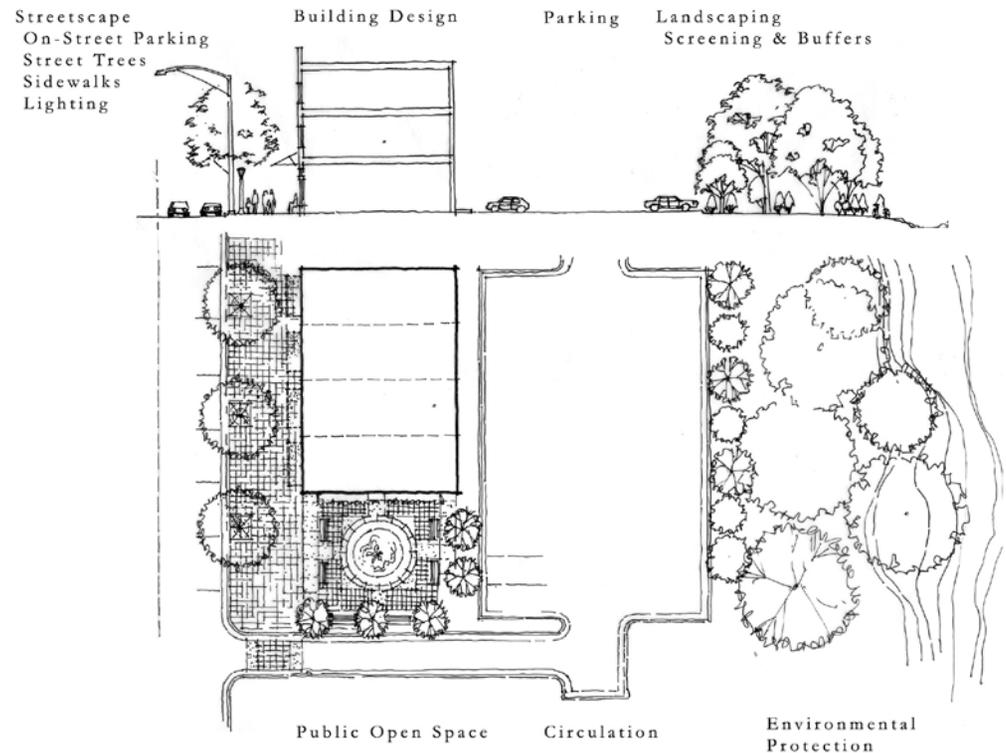
- Reduced setbacks
- Reduced minimum parking
- Promotion of awnings

These design standards, in combination with streetscape requirements noted above, could be implemented as the base standards for commercial development in identified walkable mixed-use centers and corridors.

RESTRICT DRIVE-THRU IN WALKABLE DISTRICTS

In addition to certain pedestrian-oriented designs standards, there are certain types of land uses such as drive-thru retail that are especially un-pedestrian-friendly. Drive-thrus are not only unsafe for pedestrians, but they also work against compact development. Drive-thru services should be disallowed or severely restricted in districts that are supposed to promote pedestrian access and pedestrian-friendly environments, such as downtown and neighborhood-serving districts.

Banks with drive-in windows are currently allowed in the downtown (B-1) and Neighborhood Business (B-2) zoning districts. Restaurants with drive-in service are allowed in B-1 and B-2 districts.



This graphic illustrates in section and plan view the range of design standards that should be applied in the development process from the public realm of the streetscape to the private realm of buildings and site design.

5. FOSTER...ATTRACTIVE COMMUNITIES WITH A STRONG SENSE OF PLACE

VISION

- Maintaining the cultural, historical, sense of place re: appearance and affect on tourism

STRENGTHS/ACCOMPLISHMENTS

- “Citizens committed to good development”
- “Viewsheds intact: Regulating hillside development, viewshed protection”
- “Downtown is doing well; Howard Street streetscape project for streetscape and infrastructure”
- “New development is enhancing community through: appearance standards; landscaping; commercial developers are responding”
- “Boone Community Improvement Program”
- “Farmers’ Market”
- “Reduction of billboards”
- “Neighborhood Conservation Districts”
- “Big Box ordinance”
- “Sign ordinance; especially good standards for downtown”
- *Downtown Boone Public Art Master Plan*

OPPORTUNITIES/CHALLENGES

Improved Design Standards

- “Need stricter design standards for development; downtown master plan/design guidelines.”
- “Need holistic approach to building appearance standards”

- “Need better architectural standards”
- “Improved area landscape plantings, green space, public lighting, site furnishings”
- “Implement a 1% for Public Art/Greenspace Ordinance: an allocation of 1% of project construction budgets to incorporate art/greenspace into the project”
- “Lighting requirements are bad: light pollution”
- “Require chain businesses to conform to Boone standards”
- “Ensure that large commercial parking lots have adequate beauty provisions such as trees and other landscaping.”

Neighborhood preservation

- “Neighborhoods constantly besieged; feel that they are constantly trying to preserve neighborhoods.”
- “Neighborhood preservation is primary concern, especially neighborhoods in close proximity to campus.”
- “Student encroachment in existing neighborhoods “
- “University hasn’t done enough to support neighborhood integrity.”
- “Issues with housing not being kept up to code”

Other Issues

- “Hardware supply and other local convenience shopping is gone in downtown Boone due to tourist shops.”
- “Students claim they have nowhere to go hangout; not much nightlife downtown”
- “Corridor overlay district: very political; hard to implement; needs more teeth”

SENSE OF PLACE

RECOMMENDATIONS

APPLY DESIGN STANDARDS THAT SUPPORT SMART GROWTH

Recently, Boone has applied Commercial Development Appearance Standards to good effect, especially in regards to building form, materials, and retaining walls. The Standards are written with easily measured requirements and accompanying graphics, which make for predictable decisions for staff and the public. This report includes recommendations for refining the existing standards and perhaps expanding them to other building types through form-based standards.

The current standards for exterior walls are good and easily administered. However, there is some danger that these standards may lead to cut-and-paste architecture, especially for smaller buildings. Also, in mixed-use and pedestrian-oriented contexts, some features such as windows and awnings need to be more heavily weighted than others. The requirements in the Mixed-Use Districts for windows at the ground level provide excellent examples and could be the standard. (The *Central Business District Analysis and Recommendations* recommends developing unique appearance standards for the CBD.)

This report strongly encourages the Town to consider developing and applying some level of design standards to all buildings. The following is a partial list of elements of development elements that can be regulated using design standards and that may vary according to Rural-Urban Transect context:

- Location on lot (consider maximum setbacks in some districts);
- Street Walls;
- Building Entrances;
- Roof Treatments (pitched roofs and parapet walls);
- Façade Treatment (window proportions, architectural treatment,

roofline offsets);

- Encroachments (bay windows, balconies, awning, arcades, etc.);
- Buildings Materials (i.e. brick, stone, and siding); and
- Infill design standards (relationship to neighboring buildings).
- Garage door location (relationship to street)

The table below shows the possible application of various design features to certain building types & uses in the land development regulations:

Design Standard	Commercial	Multi-Family	Single-Family (Small Lot)	Manufactured Housing
Building Location	√	√	√	√
Off-Street Parking Location	√	√	√	√
Right-of-way Landscaping	√	√	√	√
On-Site Landscaping	√	√	√	√
Frontage of Garage	n/a	√	√	n/a
Encroachments	√	√	√	√
Front Door Location	√	√	√	√
Roof Form/Pitch	√	√	√	√
Percent of Windows/Doors	√	√		
Building Materials	√	√	√	√
Building Color	√	√		

REVISE SIGN STANDARDS

The *Comprehensive Plan Update* recommends supplementing “the highway corridor overlay district to include: 1) attractive signage, and 2) build-to lines with parking in the rear.” The build-to line objective has been implemented through the good (but optional) Mixed-Use District requirements.

The Town has also established attractive incentives for ground mounted signs, but these are optional provisions also. If Boone

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Sign clutter (and pole clutter) along US 321. This corridor creates one of the most enduring visual associations of Boone.

decided to truly tame the visual clutter of the commercial corridors, it could require that all signs be ground mounted. The sign standards for B-2 and B-3 commercial districts, while more restrictive than many communities' sign standards, are generally very suburban in nature and not conducive to Smart Growth-type development.

The UDO contains appropriate sign standards for the pedestrian-oriented downtown business district. Similar standards could be applied in other areas where mixed-use, pedestrian-oriented development is to be encouraged. (The *Central Business District Analysis and Recommendations* suggests allowing sidewalk signs and developing special sign standards for the core of the CBD.)

CREATE OPPORTUNITIES FOR COMMUNITY INTERACTION

The Boone Farmers' market is one of the great success stories of Smart Growth in Boone and is a source of local pride and community interaction. In a recent article, Bill McKibben reported on a sociological study that found "a visit to a farmer's market resulted in 10 times as many conversations as a visit to a supermarket.

One of the disadvantages of the current market is that it is not at a more centralized or accessible location where it could take advantage of and catalyze other formal and informal public interaction and commerce such as a downtown location.

The *Town of Boone Central Business District Analysis and Recommendations* (2006) advises a centrally located park downtown, which would be ideal for community events.

IMPLEMENT PERCENT-FOR-ART POLICY/ORDINANCE

Boone has done an outstanding job of providing and promoting public art. This effort is especially notable in downtown. The Downtown Boone Development Association (DBDA) recently commissioned a *Downtown Boone Public Art Master Plan* to further this initiative. There are two very common means that cities around the country are using to promote and provide public art.

The first is public appropriations for such art. Town authorities should consider adopting ordinances that appropriate 1 percent of eligible capital improvement project funds for public art. This will ensure that artworks enhance Boone's public spaces and become an integral part of urban and economic development efforts. Specifically, the Town could reserve locations for public art around all public buildings and facilities, perhaps cataloguing existing and potential locations and prioritizing each site.

The second means is to require and/or incent private provision

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of public art. Many cities across the country—especially in their downtowns and in other key locations, including gateways and mixed-use districts—have development regulations that require private developers to contribute a percentage (usually less than 2%) of the development costs to providing public art on their property or contributing to a public art fund. Other cities provide incentives such as density bonuses for developers that provide public art.



Boone has done an outstanding job of promoting public art in downtown.

ENHANCE NEIGHBORHOOD CONSERVATION STANDARDS

The UDO includes some very useful provisions for protecting existing neighborhoods in the Neighborhood Conservation Districts. One enhancement to these regulations that the Town could consider is the use of parking fee revenues to fund neighborhood improvements. Just as downtown districts have used parking revenues to fund district improvements, neighborhoods can use parking districts to provide similar benefits. Especially in neighborhoods with a high demand for parking, parking permit fees could be established and the proceeds could help fund neighborhood improvements such as traffic calming and other infrastructure improvements, gateway improvements, neighborhood events, and other neighborhood-serving programs or projects.

REQUIRE ATTRACTIVE STREETSCAPES

In the Walkable Communities section, the audit recommended enhanced streetscape requirements in order to create more pedestrian-oriented corridors. Streetscapes also have an important aesthetic component and create lasting (positive or negative) impressions for visitors. Other than one or two key destinations, streetscapes may be the primary part of Boone that visitors see.

Currently, the UDO has street yard requirements (for landscaping on private property) that are a very suburban approach applied too broadly. Street trees and planting strips that separate roadway from sidewalk and provide shade would provide greater benefit to pedestrians and would be more appropriate for urban and mixed-use conditions and along major roadways.

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Streetscape along major roadway in Boulder, CO: street trees, low signage, and underground utilities.

DEVELOP DISTINCTIVE PUBLIC TRANSIT

One of Boone's most unique and outstanding features is the AppalCART system of free buses for students and citizens. As a way to promote this already attractive service to potential patrons and at the same time promote Boone to residents and visitors, the AppalCART system uses unique graphic applications for the buses. The buses are advertisements on wheels for the spirit of innovation and the principles of the Appal CART service itself, ASU, and Boone. The names and graphics could make references to: the good things that AppalCART is doing, such as using bio-fuels; the University's image; and the past, present, and future of Boone and the High Country.



Source: bouldercolorado.gov

DISTINCTIVE PUBLIC TRANSIT: GO BOULDER

GO Boulder, the [Boulder, CO's] transit agency, created the Community Transit Network (CTN), the mission of which was to run a fleet of small, colorfully designed buses with high-frequency, inexpensive, and direct service within the city. Presently, CTN sponsors six individual bus lines—Hop, Skip, Jump, Bound, Dash, and Stampede—each with distinctive identities. A citizen design panel developed community-based design guidelines for each of the bus lines. All six of the fleets are comprised of neighborhood-scale-sized vehicles appropriate for Boulder's context.

Each line is brightly colored and reflects various themes. For instance, the Skip Line, which serves riders who commute to work or school during the day and use the bus for a night out on the town, has graphics that show an energized commuter with a coffee cup. The Jump line, which travels semirural streets to a community outside of Boulder, displays cows, snowflakes, a windmill, and a cozy home—all things travelers would see on the route. In total, the CTN moves 15,000 passengers each day and continues to expand its system.

Excerpted from Getting to Smarth Growth II (SGN, 2003)

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6. PRESERVE OPEN SPACE, FARMLAND, NATURAL BEAUTY, AND CRITICAL ENVIRONMENTAL AREAS

VISION

- “Getting value out of natural resources: allowing property owners to incorporate natural features in new development”

STRENGTHS/ACCOMPLISHMENTS

- “Citizens committed to protecting natural resources”
- “Expanding greenway system”
- “Funding for acquisition of greenspace: FEMA buyouts of flood-prone areas, etc.”
- “Stream buffer regulations”
- “Water quality is becoming more of a priority to the Town Council: retained a consultant to look at stormwater quality issue. Funds to look at NPDES Phase II, hiring staff, implementing water quality issues in town, UDO, and someone to follow up if systems are properly working and maintained.”
- “Good floodplain management provisions in ordinance”
- “Good watershed and steep slope regulations”
- “Tree protection regulations extends to subdivision development phase”
- “Water conservation program in schools”
- “Preservation of canopy more important now vs individual tree protection. Regulating tree canopy in residential areas. Maintaining the health of the canopies as well.”

- Stream restoration project for Kraut Creek downtown
- Rain water reuse systems allowed

OPPORTUNITIES/CHALLENGES

Protecting water resources

- Water quality a huge issue; also quantity and access (Watauga County is headwater of 4 rivers: New, Watauga, Linville and Catawba).
- The stormwater regulations no longer contain a water quality component. Guidance language tracking NPDES Phase II should be re-established.
- Town needs to look at regulations re: water quality, including LID (low impact development) and rainwater catchment
- Need priority on wetlands and floodplains
- Must ensure that any treated water we are putting back into nature is not harmful to people and the environment.
- Areas along streams need to be protected from degradation, especially from sedimentation and stormwater runoff. Adequate vegetative buffers are key.
- Watauga River has streams feeding into it down 105 and gravel plant lets go of their sludge whenever it rains.
- Howard Street: can't seem to ensure that BMP's are included for stormwater runoff. Would like to see the Town take on stormwater management practices and have businesses up and down the creek pledge to uphold them.
- Possibility of implementing a fee for stormwater management; need to determine whether University would be involved.

Water quantity (flooding)

- “flooding issues as we grow”
- “Floodplain buildings, impervious areas causing run off into commercial areas, which is causing increased flooding; a lot of the flatter slopes have been built upon so greater potential for runoff and erosion.”

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Water availability

- “Need for natural groundwater recharge”
- “Need a dependable source of water, but not one that is harmful of the environment”
- “Need to have geologic survey to determine how much water we have and compare to growth, especially with droughts. Our water runs downhill and we don’t retain it.”
- “Limitations with water/sewer services due to topography.”
- “Water/sewer availability fees too low”

Steep slopes

- “Looking to Boone to be a model of the steep slope ordinance.”
- “A lot of developers want to speculate on ASU growth; want to build on slopes in secondary pressure zones (> 3400)”
- “Would like to see more of Howards Knob protected”

Farmland protection

- “Need greater protection of farmland. 50% of the land here was owned by people that don’t live in Boone (study done by Mountainkeepers in 2000).”
- “Farmers not able to hold onto land with rising land prices”
- “Need to protect timberland and farmland; need to grow food where we live”

Forest preservation

- “Revamp tree conservation to allow issuance of speculative grading/site prep work”
- “A lot of trees in commercial properties; problems with historic trees preventing development.”
- “Need to update the Tree Master Plan to reflect urban forest (vs. individual tree protection)”
- “Need to balance tree preservation vs. new development; Staples is a good example of what NOT to do.”

Air quality

- “Air quality from traffic and being downwind from the coal burning facilities a concern”
- “Acid rain on highest peaks”
- “Boone should consider leading the way in choice of official vehicles by choosing hybrids and other environmentally responsible transportation.”

RECOMMENDATIONS

OPEN SPACE/GREEN INFRASTRUCTURE PLAN

One of the outcomes of a strategic land use master plan should be an indication of the areas of the town that should be preserved for passive or active recreation space and/or natural areas. These could be areas that the Town and/or the County would target for purchase or that the Town would negotiate with developers to preserve as new development occurs. Such a plan should also include plans for future greenways or linear parks that would serve both to protect natural areas along streams and floodways as well as providing important non-motorized transportation linkages throughout the Town. The *Comprehensive Plan Update* recommends a “park master plan” and “greenways action plan,” both of which could be an outgrowth or an outcome of the land use master plan.

As part of the land use plan process, we generally recommend the use of a sliding scale of land evaluation that preserves trees and other environmental features based on the following site features:

- *Prime Buildable.* Land with little or no building restrictions due to favorable slope conditions or site topography. These areas generally offer the least opportunity for the preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.
- *Secondary Buildable.* Such areas require selective clearing and grading. These areas offer limited opportunity for the

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preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.

- *Conserved.* These areas offer optimal opportunity for the preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.
- *Preserved.* Natural floodplain and floodways, wetland areas, riparian buffers, and areas with significant existing mature tree canopy, where forest stands shall be preserved.



Stream buffer and greenway along the South Fork of the New River.

DEVELOP A COMPREHENSIVE STORM DRAINAGE AND FLOODPLAIN MANAGEMENT PLAN

The *Comprehensive Plan Update* suggests that the Town complete a comprehensive storm drainage and floodplain management plan. Already Boone is investigating the re-establishment of National Pollution Discharge Elimination System (NPDES) Phase II permit and is developing a five year plan for implementing and funding storm water management to meet these standards. This process will include many planning, evaluation, education, and implementation actions. In addition to a comprehensive storm drainage and floodplain management plan, the effort should also include consideration of the following:

- The Town has good requirements for vegetative buffers along streams, which are currently set at 30 feet. Boone may want to revisit the size of the vegetative buffers as 30 feet may not be sufficient to account for the intended water quality, riparian, and tree save goals of the Town. Consult with state and local environmental and water quality specialists for appropriate widths for High Country areas. The North Carolina Wildlife resource council suggests a minimum 100-foot buffer for wildlife protection. The State Division of Water Quality also suggests that maximum water quality benefits are achieved with 50-foot buffers. At the same time, buffer requirements, like all requirements should be modified to fit the various development contexts in the Town's jurisdiction, based on the Rural-Urban Transect concept.
- The Town currently requires a Drainage Plan for "all zoning permits, special use permits, zoning vested right or minor subdivision plat approval." This is a useful requirement, although the application may not be appropriate for redevelopment areas and other areas where the Town may want to direct intense growth (e.g. downtown). Regional storm water plans may be appropriate for such areas where storm water management on a site-by-site basis may be counter to goals for compact

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development. Otherwise, incentives for on-site storm water management and/or public participation in such may be appropriate in these areas.

- The UDO Article on Grading, Soil Erosion, and Sediment Control is well detailed with very definitive standards and provisions. The Town may want to consider different standards for different areas based on the Rural-Urban Transect. For example, in areas that the Town wants to direct and encourage growth and development, such as downtown and in identified mixed-use centers, different standards for grading and slopes may be appropriate.

CONSIDER DENSITY BONUSES AND TDR IN EXCHANGE FOR PRESERVATION OF SENSITIVE ENVIRONMENTAL FEATURES

This recommendation is derived from the Town's *Comprehensive Plan Update*. This audit concurs in the recommendation to use density bonuses and other incentives to achieve community goals, including the preservation and protection of sensitive environmental areas. Currently, the UDO provides a density credit for areas dedicated as open space, but no overall density bonus. This measure could easily be enhanced to actually allow greater gross density in exchange for public dedication of identified critical areas.

Furthermore, the UDO's current density provisions in Watershed Areas could promote or require cluster subdivisions rather than allow them as exceptions requiring special approval. Even if density is limited to 1 dwelling unit per 2 acres, clearing and grading for 2 acre lots and associated infrastructure have greater environmental impact than clustered developments with much smaller lots, but larger intact preservation areas. As noted in the Compact Development section, higher density development results in fewer water quality and water quantity impacts than low density development: "Water quality suffers not only from the increase in impervious surface, but also from the associated activities: construction, increased travel to and from the development, and extension of infrastructure." (EPA, 2006)

STORMWATER REGULATIONS TO ENCOURAGE INFILL

Developers in urban areas are finding that requirements stipulating that stormwater be managed on the project site are a barrier to redevelopment and construction of infill and more compact projects. Land for onsite stormwater management is often not available or is prohibitively expensive. In addition, codes that limit the amount of impervious surface that can be built on a site discourage both development in urban areas and compact development.

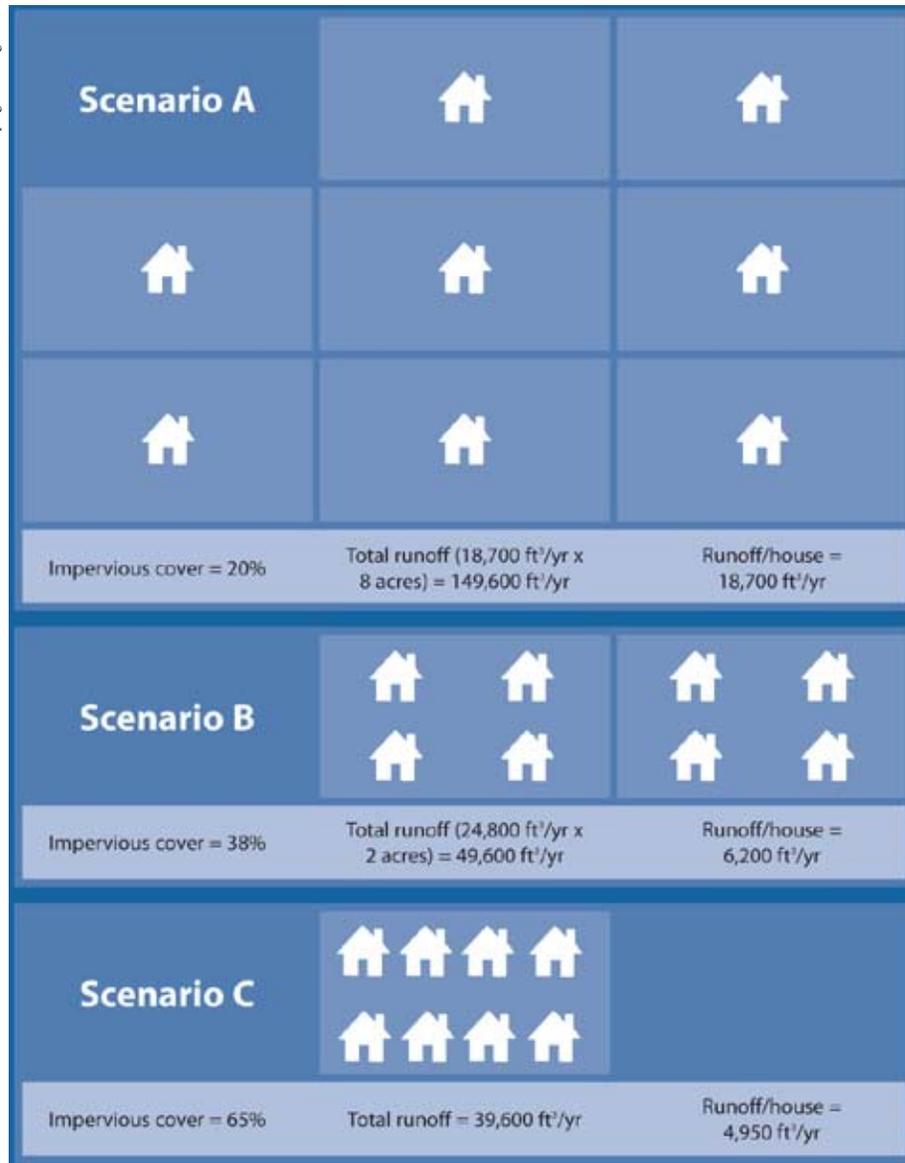
Fortunately, there are innovative options that foster redevelopment and control stormwater. In 2002, the city of San Diego adopted a policy of allowing infill redevelopers to share in the cost of stormwater abatement in lieu of onsite mitigation. Instead of requiring treatment of each individual project, the Standard Urban Stormwater Mitigation Plan allows developers to contribute to stormwater mitigation that serves the entire drainage basin. Engineers estimate that individual development projects can achieve savings of up to \$40,000 by participating in a shared stormwater control program. The Low Impact Development Center, a nonprofit organization dedicated to protecting water resources through site-design techniques, is sponsoring research on low-impact development techniques that require less space. One technique is the use of soil amendments that allow compact landscaping to absorb and hold stormwater without causing flooding or damage to adjacent buildings.

The possibility of offsite mitigation makes smaller infill projects more feasible and provides an opportunity to locate mitigation facilities in a way that can serve multiple projects. In return for offsite mitigation, jurisdictions could increase allowable densities in downtown and designated areas. In such a case, the municipality would become accountable for maintaining water quality in that particular basin.

Excerpted from Getting to Smarth Growth II (SGN, 2003)

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Source: EPA 2006; www.epa.gov/smartgrowth



This graphic from the U.S. Environmental Protection Agency (EPA) shows how for eight houses developed in different density configurations, higher density or clustered development has less stormwater impact than more dispersed development patterns.

Transfer of Development Rights (TDR) is a land preservation tool that is much more complex to implement and more politically risky, but may be a tool worth exploring for Boone given the challenging development terrain, sensitive environmental areas, intense development pressures, and high land costs. The TDR concept uses free market forces and individual land rights to direct development for a locally determined common good. The basic notion of TDR is that development rights on land that is designated for protection or preservation (for environmental, agricultural, and/or open space purposes) can be sold to land holders or developers in areas that are designated for growth.

Currently, in North Carolina there is no specific legislative authority for TDR, but it is currently thought to be permissible under other existing authority granted to municipalities. Orange County, North Carolina is currently drafting standards for a local TDR program to protect farmland and environmentally sensitive areas.

PROTECT AGRICULTURAL LANDS

On a related note, Boone should continue to explore mechanisms to protect valuable and beautiful agricultural lands in the area. TDR tools can help in this effort. A more immediate approach would be to reduce the allowed density in rural areas and require clustering of residential subdivisions.

Currently, permitted density and lot sizes in the Residential/ Agricultural (R-A) district (2 dwelling units/acre) promote very low-density sprawl and do not support preservation of agricultural uses or open space, despite the name of the district. The Town should require cluster subdivisions, at least, in these districts. Priorities on areas to be preserved for agricultural uses should be guided by a land use master plan process.

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REQUIRE/INCENT PERMEABLE PAVING AND OTHER LID PROVISIONS IN DEVELOPMENT STANDARDS

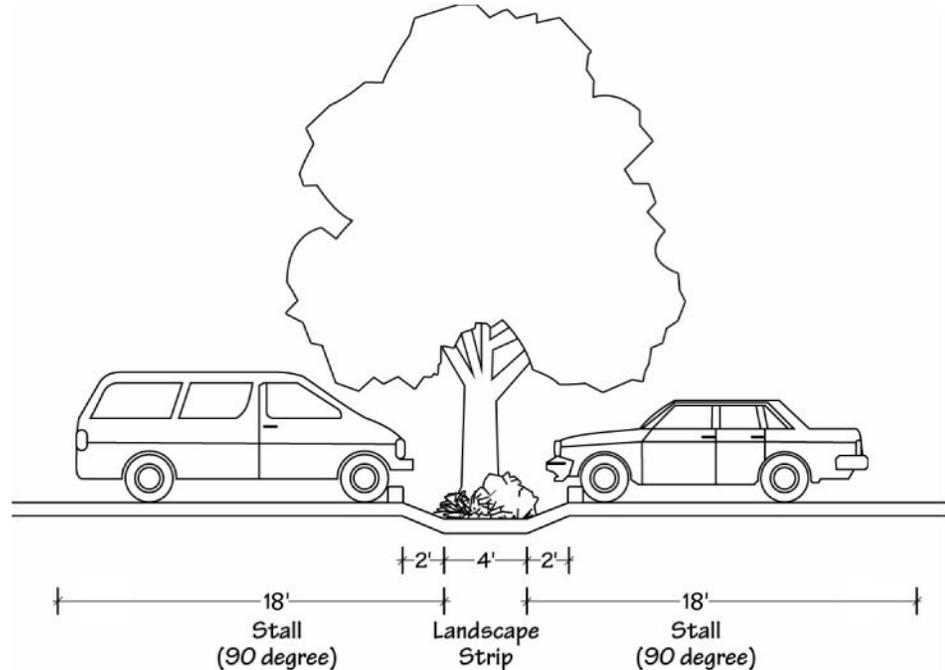
Another Smart Growth-supportive goal from the *Comprehensive Plan Update* policies is to promote low impact development standards. This objective is not currently being implemented through the UDO, although as mentioned above, the Town is preparing a stormwater management program to meet NPDES requirements. That effort proposes to include new requirements for dealing with storm water management in efficient and environmentally sensitive ways.

The following are specific regulatory issues for consideration as the current UDO requirements are evaluated against local environmental and Smart Growth goals:

- The current requirement for curb and gutter in parking lots is inconsistent with storm water management goals and requirements of low impact development. Natural detention and retention systems for storm water flows in parking lots should be prioritized over curb and gutter.
- The UDO has good requirements for parking lot landscaping, however they currently do not require or encourage developers to actively use the landscaped areas for storm water catchment. Boone should consider requiring landscaped areas to be used for storm water retention areas or giving credit for such.

REVISE TREE AND LANDSCAPE PROTECTION STANDARDS

Much of the beauty and identity of Boone is drawn from its natural surroundings: the mountains, rivers, floodplains, and forests. Unfortunately, the impact of community growth has continued a pattern of deforestation that has plagued North Carolina for many years. It is evident in the Boone area that hundreds of acres of previously forested lands have been and are being cleared for new development.



The City of Portland, OR allows parking stalls to overhang landscaped areas in parking lots, but requires that the landscaped areas also serve as stormwater catchment biofilters.

It is not news to residents of the High Country that forests provide oxygen, home for wildlife, areas for recreation and the raw materials for thousands of products from paper to cosmetics. Losses of forest affects wildlife habitat, supply of wood and other forest products, tourism dollars, and water quality.

Many communities throughout the state have been proactive in the protection of this valuable asset and Boone is no exception. Protecting existing forests and trees that help to define the character and environment of Boone is a priority that comes through clearly in Town planning documents and in comments from stakeholders. The Town is currently revising its Tree Master Plan with an eye towards greater protection of forest canopy versus protection of individual trees.

Source: City of Portland, OR

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With this current effort in mind, this audit offers the following thoughts on tree and forest protection to add to the Town's on-going study of tree protection mechanisms.

There are number of techniques for protecting forests ranging from fee simple purchase and conservation easements to development restrictions. Many communities have sought specific enabling legislation for the protection of trees. There may, however, be sufficient authority under the broad construction clause of North Carolina G.S. 160A-4 for cities to permit such protection during the development process.



Loss of trees on hillsides and viewsheds is both an aesthetic and an environmental concern for Boone citizens.

Generally, Boone has good standards for tree protection, although, like many other local standards they tend towards a one-size-fits-all approach that may not be appropriate in all development contexts throughout the Town. In certain areas where the Town wishes to encourage more intense development, less intense tree protection requirements and/or a more incentive-based approach to tree preservation may be in order.

A tree preservation ordinance can range from a simple guideline that is negotiated as part of a discretionary approval process, to a complex system that assigns points based on the types of species protected. The former approach is seductive, because its simplicity creates the impression that it will be easy to administer. In practice, however, discretionary ordinances fail to answer key administrative questions such as how a tree survey is conducted and how many trees must be preserved. In addition, it can have draconian results because developers are often required to preserve species of little value, or species that are easily replaceable. A more comprehensive ordinance creates clearer rules for the private sector and code administrators, even if it initially takes more time to learn.

The following issues must be addressed in developing tree protection regulations:

Woodland Protection versus Individual Tree Delineation. A woodland protection approach requires the delineation and protection of large contiguous tree stands early in the approval process. Most modern tree ordinances require individual tree delineation and they tend to focus on preserving large trees. While large trees stimulate the greatest controversy, they are often at or near maturity and may be less able to provide usable forest cover in the long term. Retaining stands of smaller trees can provide greater benefits in maintaining a healthy urban forest. This is the approach that Boone is currently working towards.

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The best approach depends on staffing resources and the political support for tree preservation in the Town. A woodland protection approach is the most viable for a smaller staff, and it is consistent with the environmental, stormwater management, and air quality benefits of tree protection. It is increasingly recognized that trees are more effectively preserved in groups or stands which retain sufficient size to maintain the integrity of the unit, rather in small stands of uniform species. The International Society of Arboriculture recommends that minimum forest remnant sizes be based on a variety of factors such as species composition, sensitivity to impacts, tree size, age of trees, root conformations, canopy conformations, structural stability, development constraints, and habitat conservation.

Woodland protection ordinances either ignore or deemphasize the size of individual trees, and focus instead on tree cover. Other jurisdictions (such as Fulton County, Georgia) require a designated density of trees on-site, rather than protection of individual species. Orlando, Florida uses a point system where the size and species of trees affect the point scale. This encourages the protection of trees of various species, but does not protect individual trees because trees may be removed and later replanted.

Location. Where (in what locations) should tree preservation requirements apply? Most ordinances require that a designated percentage of trees outside of the buildable area of a site be preserved. This requirement has been criticized because it creates a disincentive to plan around valuable stands of trees, requires developers to show building envelopes early in the approval process, and requires enforcement at the building permit stage. However, stands of trees that will fall inside subdivided lots cannot be protected unless there is enforcement at, or beyond, the building permit stage.

Amount. How many trees should be protected? Does this include a designated percentage of all species? Should species that are less valuable, or that grow quickly and are easily replaced, be excluded?

Mitigation. There are situations where unique topography or other conditions require tree removal. Most jurisdictions with comprehensive tree ordinances permit removal above the amounts normally permitted, subject to mitigation. Mitigation requirements should prescribe the number of replacement trees needed to replace an existing tree, and where the replacement trees must be located. Some ordinances permit the replacement trees to be planted off-site.

Protection During Construction. Allowing trees to be destroyed by cutting roots during the construction process defeats the purpose of the ordinance. Most comprehensive tree ordinances require the designation of a root protection zone. This zone must be clearly marked, and protected from construction activities that would harm the root systems.

ENHANCE RECREATION SPACE REQUIREMENTS

Currently, the UDO only requires recreation space provision for multi-family developments and manufactured home parks. This audit suggests that the Town require recreation space dedication for all new residential development of a certain acreage or number of units, and that the amount and type of open space (active, passive, natural, urban, etc.) be detailed and assigned based on the land use context, including proximity to existing or planned public parks, and the type of development. (The transect method can be useful in classifying types and size of open space based on the urban, suburban, or rural context.) The amount of recreation space required should be based on the number of users versus size of lot (per bedroom is a useful factor). Open space dedication should also be linked to existing park and greenway plans. Development incentives such as a density bonus should be considered for certain open space improvements, such as greenways.

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Incentives or requirements for making recreation space publicly accessible should also be considered. Furthermore, additional standards for the design and minimum requirements for recreation space need to be developed.

There are three basic approaches to open space dedication:

Open Space Strategy	Advantages	Disadvantages
Sliding scale % of land (i.e., 5-10%) Currently used by Boone	Easily measured	Not reflective of number or types of users
Area per housing unit	Easily measured – closer measure of need	Not as reflective of types or number of users in the neighborhood (typical apartment occupancy is less than single family, but greater density)
Area per bedroom	Greatest coordination between population and need for open space	Can be difficult to measure – can use averages based on building type (i.e., 2 bedrooms in town homes, 3 in single family)

The type and character of open space should be influenced by the surrounding uses (i.e., retail, office, residential) as well as by the prospective user groups (i.e., residents, workers, shoppers, youth, seniors).

Boone should also consider a payment-in-lieu-of-dedication option for developers where it isn't practical to dedicate a reasonably sized tract or where the development is in walking distance to another public park or open space that can be improved.

IMPLEMENT POLICY INITIATIVES FOR SUSTAINABILITY

One of the stakeholders suggested that the Town will need to take a leadership role in terms of promoting and modeling sustainable environmental practices by using low emissions vehicles and other environmentally sustainable forms of transportation. This report encourages that the Town not limit itself to utilizing sustainable transportation practices, but also provide leadership in sustainable building and site design practices. For example, like municipalities across the country, the Town could use the LEED guidelines for certifying all new public buildings as energy efficient and environmentally sustainable.



Green roofs such as this garden roof can be usable and functional and provide local models for sustainable development.

OPEN SPACE

Developed by the USGBC membership, the Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a national consensus based, market-driven building rating system designed to accelerate the development and implementation of green building practices. It is a leading-edge system for designing, constructing and certifying sustainable buildings. Already Boone is working with Watauga County on planning for green building and site design for the new high school. ASU is also planning for several LEED building projects.

Boone should consider sustainable building techniques at a minimum LEED Silver level with all new or expanded public buildings. The City of Chicago is implementing a similar requirement across all of its public buildings and is retrofitting many of them to achieve the goals. The most widely publicized of their retrofits is the installation of various roof systems. They are using “green” roofs such as a planted garden or “white” roofs (white painted surfaces to reflect sunlight rather than absorb it) for all new construction, particularly for public uses such as fire stations and schools. Such roofing systems not only reduce energy costs on the buildings, but garden roofs can also be designed to capture and filter stormwater during a rainstorm. These techniques reduce the environmental footprint of a building and promote sustainable development practices.

The Town can provide a valuable marketing and testing ground for local green building practices. And sustainable construction practices do not have to be and should not be limited to buildings and LEED standards. Boone can also ensure that all capital projects including parking lots and sidewalk installations include sustainable best practices.

ENCOURAGE GREEN BUILDING STANDARDS FOR PRIVATE DEVELOPMENT

The Town should consider green building incentives at the local level for developers who consider the use of the LEED rating system for sustainable building practices. Arlington County, Virginia has a LEED Certification Incentive Program entitled “Building Green, Building Smart.” If projects achieve the minimum LEED certification of Silver then they can receive up to 3 additional stories and/or .35 additional Floor Area Ratio (FAR). The City of Seattle provides direct grant funding and technical assistance for soft costs related to LEED documentation, building commissioning and certification. This can be quite valuable as these soft costs can run \$10,000 - \$20,000 or more depending on the size of the project.

7. STRENGTHEN AND DIRECT DEVELOPMENT TOWARD EXISTING COMMUNITIES

VISION

- “Work on RE-development”
- “Taxpayer funded parking deck downtown”

STRENGTHS/ACCOMPLISHMENTS

- Good job of directing development through sewer/water provision
- Planned Howard Street streetscaping project
- “New water and sewer along Howard street will help promote redevelopment downtown”
- *Town of Boone Central Business District: Analysis and Recommendations* completed in 2006

OPPORTUNITIES/CHALLENGES

- “Redevelopment should be especially encouraged and facilitated. The current UDO contains many regulatory impediments which often result in abandoned projects (no improvements or reuse).”

Downtown

- “Promote development/redevelopment in downtown”
- “Lack of specific master planning for downtown including overall design guidelines/implementation plan”
- “Need to revise MSD (Municipal Service District)”
- “Need to conduct a retail inventory to understand that the market can/not hold; fill the need with incentives for necessary

- businesses, encourage mixed use developments”
- “Restore public historic buildings, for example: post office”
- “Need to assist the hospitality houses in the MSD to relocate to an up-to-date, larger facility that is outside the downtown.”
- Downtown businesses need to stay open longer”

Parking

- “Need revised parking study for downtown”
- “Over-parked; downtown regulations don’t fit/work”
- “Too much parking required; especially in downtown, unused parking lots”

Infrastructure (water/sewer)

- “Acquiring new water is #1 issue; 2009-2010 is projected built out.”
- “One of most important issues is adequate infrastructure, aging infrastructure, but with growth also demand for new, especially water system, long term water solutions in \$40-50 million range.”
- “Redevelopment projects may actually use less water, but at the same time some water/sewer lines might be undersized for some redevelopment.”
- “If new water source acquired, possibility of selling water to Blowing Rock so there would be a water line along 321, which would spur development.”
- “Also will need an expansion of the wastewater treatment plant at some point down the road: 17 more years or so, 2018/2020.”

Student Housing

- “Problem with location of student housing (too far from university, services)”
- “A lot of student housing because of growth of the university. Creates a lot of demand on the town’s infrastructure.”

EXISTING COMMUNITIES

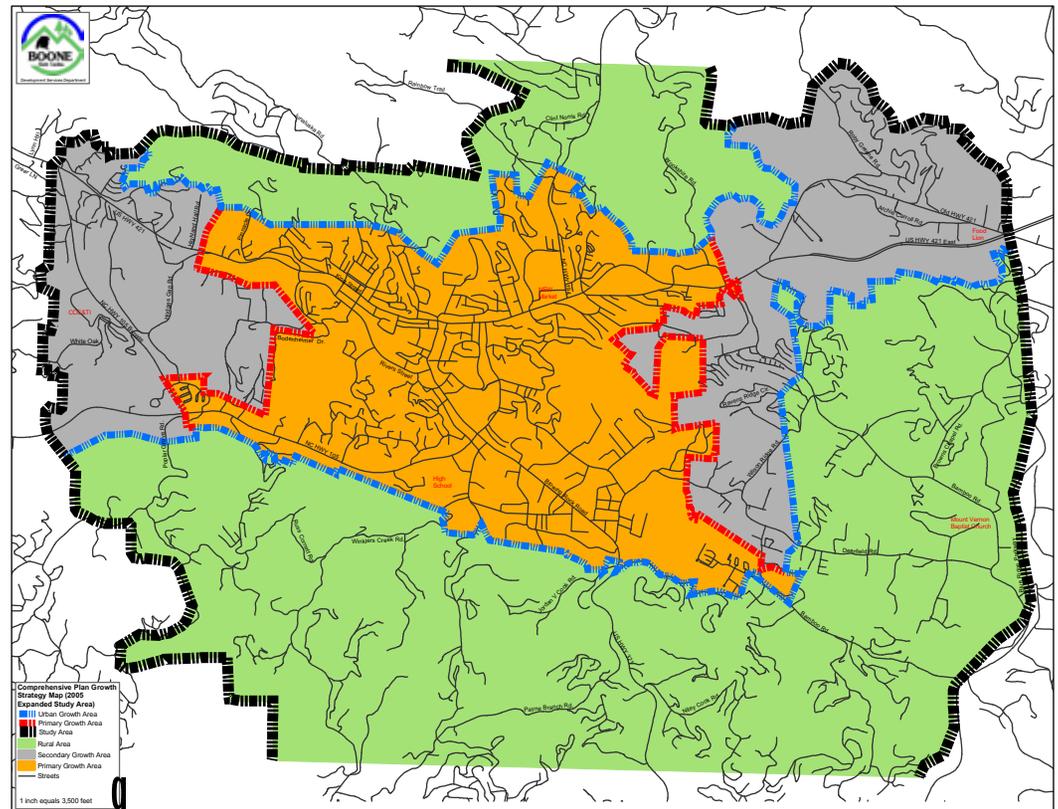
RECOMMENDATIONS

PROVIDE INCENTIVES TO LOCATE IN AREAS WITH EXISTING INFRASTRUCTURE

Boone has made an great start on directing growth towards existing built areas with its Growth Strategy Map and policies for provision of water service. The Town has defined the Primary Growth Area (shown in orange on the map at right) as the “area where urban level services or facilities are already in place or can be provided most cost effectively, [where] growth and development is to be encouraged.”

Boone could go even further in directing growth towards areas that are most accessible to existing infrastructure (roads, utilities, parks, etc.) and public services (emergency services, garbage collection, etc.) by providing economic and other incentives. This is consistent with objectives in the *Comprehensive Plan Update*: “The Town shall employ incentives to encourage a concentration of intense urban type development within the Urban Growth Area.” From a Smart Growth point of view, this audit suggests that incentives for development be limited to growth within the Primary Growth Area (essentially the existing Town Limits).

One of the most direct ways that the Town can guide growth is through the provision of sewer and water services. Currently, the Town charges twice as much for water usage (above a base limit) to users outside of the Town limits. However, as water is grossly underpriced (not unlike the situation in most of the country), this difference is probably not likely to affect growth decisions, except perhaps by large commercial users. While water rates will likely have to rise, growth decisions would be more greatly affected if water and sewer connection fees and availability were significantly different for the Primary Growth Area versus the Secondary Growth Area. Currently, the water and sewer provisions and fees do not seem to differentiate between these areas.



Boone's Growth Strategy Map. The Primary Growth Area is shown in orange. The Secondary Growth Area is shown in grey. The Rural Area is shown in green.

Other incentives that the Town could consider for directing growth to targeted development and redevelopment areas include:

- Property tax rebates, credits or waivers
- Tax increment financing (TIF)
- Density bonuses or other regulatory exceptions
- Flexible stormwater management options for infill
- Expedited permitting
- Grants of land or property

(Smart Growth Network, 2002 & 2003)

EXISTING COMMUNITIES

AVERAGE COST-PRICING PRACTICES IN UTILITIES

Low-density, dispersed developments generally enjoy subsidized utility costs because utility pricing is based on average—rather than actual—costs of providing services. Average cost pricing was established as a way to place rural residents on a level playing field with urban residents, but that policy is now contributing to rapid land consumption rates because the true costs of providing infrastructure to edge areas are often not passed on to either the developer or the final consumer. Cable television, electric, phone, water, gas, and wastewater services all charge for new hookups on an average-cost basis. A regional Bell telephone company, for example, estimated that, compared to the cost of serving customers in the central business district, it costs twice as much to serve households in the rest of the central city and ten times as much to serve households on the urban fringe. Because all customers pay average costs, residents in more urban, higher density areas in effect subsidize those in edge areas. Linear utilities such as cable television, water and sewer, phone service, and even mail delivery fail to reflect the efficiencies associated with clustered development.

Assessing the true marginal cost of infrastructure expansion is difficult, since some capital investments (such as schools, treatment facilities, and pumping stations) cannot be expanded on a small, incremental basis. Rather, they require one-time large influxes of capital to expand the capacity for both current and future users. The city of San Diego, however, uses a different approach. It has created service areas designed for impact-fee financing, in which impact fees are lower for areas served by existing infrastructure and higher for those without. This “step” approach to calculating impact fees encourages development to occur in existing service areas by offering lower impact fees to the builders of new units. Conversely, higher fees (that more closely approximate the true cost) discourage development in unserved areas.

Excerpted from Getting to Smarth Growth (SGN, 2002)

DEVELOP A DOWNTOWN MASTER PLAN

Downtown, which is one of Boone’s most defining and cherished places, should be one of the primary areas for future redevelopment. Much effort has gone into planning for and improving the appearance and function of downtown through efforts of the Town, business owners, and the Downtown Boone Development Association (DBDA).

One of the underlying assumptions of the *Central Business District: Analysis and Recommendations* report is that a master plan for Downtown Boone needs to be completed. This recommendation has been echoed by the DBDA. The audit report concurs with this recommendation.

Such an effort would need to include a visioning effort with citizens, staff, and business and property owners, and other stakeholders; a market analysis of potential development for the area (including residential and non-residential uses); and a detailed development concept plan, including detailed site designs for potential new development and redevelopment, locations for specific land uses and public open spaces (e.g., plazas, squares, etc.).

Specific design and development standards for streets, streetscapes, signage, open space, parking, and building design on a block-by-block basis should also be the product of a downtown master plan. In the near term and/or absent a comprehensive rewrite of the Town’s UDO, specific development standards for the downtown area could be implemented through the creation of a new district or an overlay district for the area. Recommendations for “an overall landscape strategy for the public right-of-way” and “specific architectural and design standards for downtown” are included in the *Comprehensive Plan Update*. Numerous valid and detailed, Smart Growth-supporting action steps for downtown are also included in the *Central Business District: Analysis and Recommendations* report developed by Town staff.

EXISTING COMMUNITIES

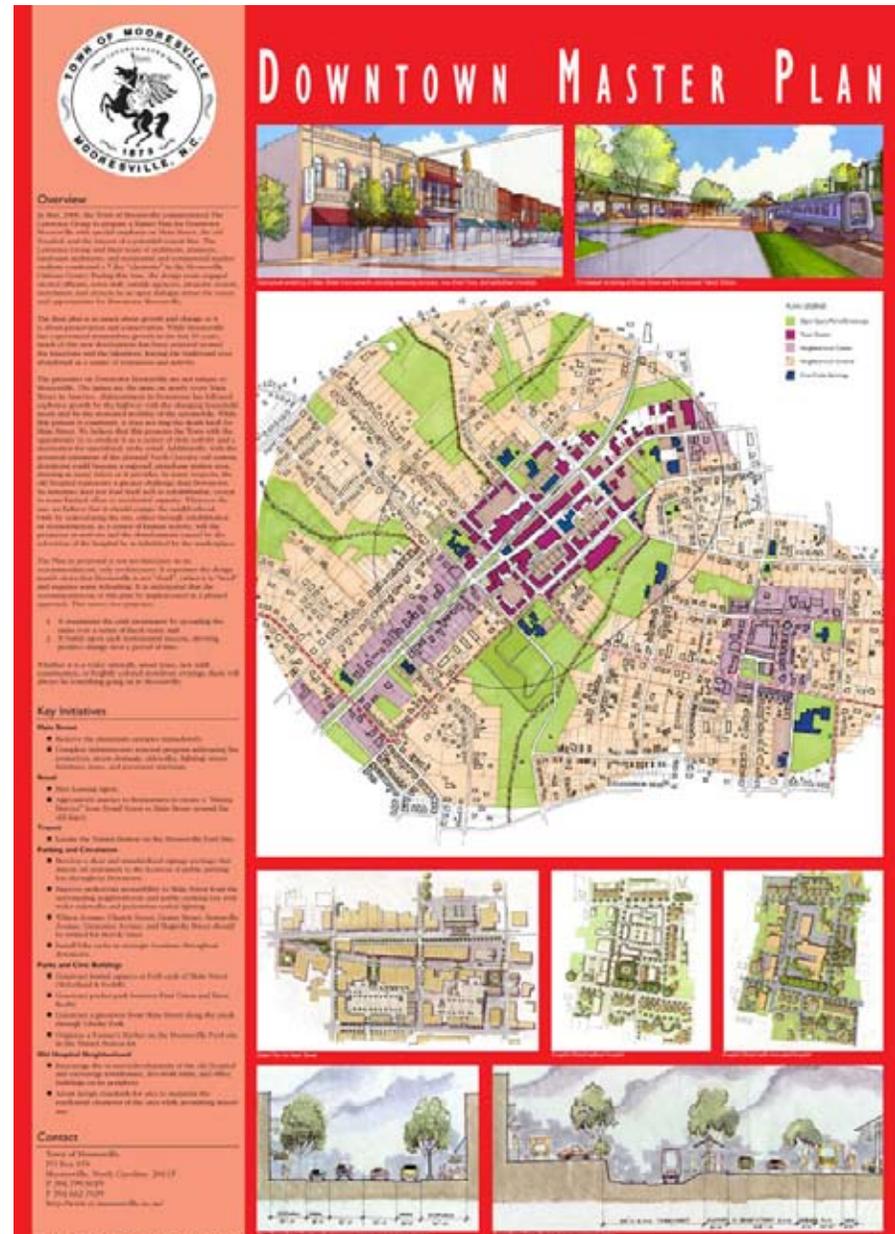
DEVELOP A DOWNTOWN PARKING PLAN

One of the greatest Smart Growth advantages of downtown over other developed areas in Boone is that it is already a compact, and walkable mixed-use district. Part of what contributes to this strength is the resource of shared parking. Significant on-street parking is available. Publicly and privately owned lots are available for free or paid parking. This shared resource should be protected and treated as a valuable asset—similar to another public utility—which means pricing and managing this asset appropriately.

A downtown parking plan should include consideration of the following:

- A parking inventory
- Requiring that all non-residential parking be shared
- Increasing public parking supply through Town and developer contributions
- Charging fees for public parking, including on-street
- Using parking revenues to support downtown improvements

Property owners such as the downtown churches have already figured out the value of their unused parking assets and are renting weekday spaces on an annual basis to students. The County also meters some of the spaces in its public lot. The Town should consider pricing its parking inventory (including on-street parking) accordingly and promoting the same with other downtown property owners so that the shared parking resource can be used most efficiently. Other downtowns are taking this seemingly radical step with great results: parking turnover is increased, which benefits downtown merchants; parking availability is more predictable and more available when parking prices are set to ensure that at least 15% of spaces are available at any given time, which benefits shoppers; and when the revenue from the parking meters are returned to programming, capital, and maintenance projects in the district, the whole community benefits. A case study on downtown parking pricing is included on the next page.



Summary poster for the Mooresville, NC Downtown Master Plan.

EXISTING COMMUNITIES

CASE STUDY: DOWNTOWN PARKING PRICING

In the early 1990s, Pasadena, California was like countless other downtowns across the country at that time. Its downtown business district was suffering, losing revenue to nearby suburban shopping centers. These new commercial centers were clean, easy to access, and they offered free parking. By contrast, Pasadena's grubby downtown might have been easy to access, but patrons didn't perceive it as so. The free but two-hour restricted parking spaces were mostly occupied by Pasadena's downtown employees, who re-positioned their cars every so often to avoid ticketing. This circumstance left few available places for potential customers.



Pasadena's parking initiative has transformed its downtown streets into vibrant commercial corridors.

Frustrated by their moribund downtown, Pasadena's leaders got together with the local businesses to address the area's problems. To combat the parking issues, the City suggested placing hourly parking meters on downtown streets. Merchants, worried that instituting price mechanisms on the free parking would drive shoppers away, opposed the measure initially. After two years of debate, however, the two sides reached a compromise: The merchants would allow the meters to be installed if the generated revenues were applied directly to improvements in downtown Pasadena.

The City agreed to return all proceeds directly to Old Pasadena's BID (Business Improvement District) and formed the Parking Meter Zone Advisory Board to determine the project's boundaries and advise the City concerning parking-related policies. Concurrently, the City initiated the "Old Pasadena Streetscape and Alleyways Project" that sought to clean up the downtown's neglected byways.

Now, nearly 15 years later, Old Pasadena is thriving. The net revenues earned by the parking meters (roughly \$1,712 per meter per year) help to pay for public services provided by the City directly tied to downtown maintenance. The services range from daily street sweeping and police patrols to trash collection and monthly sidewalk steaming—all of which are funded entirely by meter revenue. The City also uses the money to repay the loan borrowed for the streetscape project.

For Donald Shoup, UCLA professor and parking expert, the results are simple: "Returning metered-revenue to metered-neighborhoods is the political key to unlocking the public wealth of the City."

Adapted from a report by the Transportation Research Center at the University of California: Kolozsvari & Shoup, "Turning Small Change into Big Changes," Access, vol. 23. www.uctc.net

EXISTING COMMUNITIES

In addition to the recommendations above, the Town should consider the following regulatory measures to promote new development in downtown:

- Reduce parking ratios by 50% or more.
- Consider requiring no parking for sites under a certain size (e.g., >20,000 square feet). This will encourage the reuse of small buildings and the development of small infill sites.
- Allow on-street parking to count towards parking ratios.
- Consider requiring developers to provide some shared unreserved/public parking. This could be in the form of new on-street parking, off-street parking, or in-lieu fees that could be used to develop and manage public parking.
- Provide density bonuses for developers who provide public parking beyond what is required.
- Limit the number of reserved spaces that may be provided (e.g. 1 space per 1000 square feet of non-residential space; 2 spaces per residential unit or 1 space per bedroom); all other spaces would be publicly available, although not necessarily free.

PROTECT HISTORIC RESOURCES IN DOWNTOWN

Some of Boone's most treasured historic buildings and landmarks are in downtown. One of the outcomes of a downtown master plan would be to identify historic resources (including building facades, building types/development types, and even significant trees) in the plan area that need to be protected.

The Town should consider development incentives/requirements for building preservation including:

- Density bonuses for preserved buildings/facades
- Transfer of development density rights within the plan area
- Height limitations to preserve historic buildings, facades, and neighborhood fabric



Historic shopfront facades incorporated into mixed-use redevelopment in Charlotte, NC.

8. PROVIDE A VARIETY OF TRANSPORTATION CHOICES

VISION

- “Transit expanding. . .so people can get to services.”
- “Satellite parking at edge of town.”
- “Improve bike paths from other areas in Boone to the downtown with convenient greenway system.”
- “secure bike racks”
- “By-pass around Town”

STRENGTHS/ADVANTAGES/ACCOMPLISHMENTS

- “Town/university subsidy of transit system”
- “Town receives approximately \$30,000-\$40,000 of Powell Bill funds for sidewalks, but use more than that.”
- “Bicycle Group at ASU: new initiative to rent bikes to students and promote bicycling.”
- “Narrow streets permitted”
- “Planned greenway extension to Brookshire park”
- “Speed limits lowered in all neighborhoods to 20 mph”
- “Planning for 7000 linear feet of sidewalk on Hwy 105”
- Bike racks on AppalCART buses
- Good access management standards in UDO
- Town has built and is expanding greenways

OPPORTUNITIES/CHALLENGES

Motor Vehicle Traffic/Congestion

- “Growth of Boone. . .and associated traffic.”
- “Traffic: roads aren’t keeping up with the growth”
- “Boone is approaching gridlock: downtown, 321, 421”
- “Hard time getting attention from NCDOT”

- “Nuisance to shop in Boone because of traffic”
- “Transportation is an environmental issue: tourism to Boone and thru Boone. Desire to live in Boone is being taxed.”
- “Improvements along 321 will most likely increase traffic”
- “Speed limit was lowered to 20 mph in neighborhoods, but didn’t go over very well.”
- “Bear Trail been made a one way street which is a tragedy. . .can’t cut back to town.”
- “Oak Street was made one way and narrowed. Delivery trucks are parking over bike lanes, which are trying to foster pedestrian, bike transportation.”
- “NYC has “do not block the box”. . .police will ticket if you are in intersection and light turns red”
- “Housing affordability is also affecting traffic because people have to drive from other areas here to work.”

ASU traffic/parking

- “University not interested in dealing with traffic/parking”
- “ASU needs to regulate freshmen on campus who have cars”

Public Transit

- “Incentive for public transportation has to grow”
- “Need to promote AppalCART more”
- “Need to require (provide?) more transit shelters”
- “Aging population is definitely an issue. Expand transit so people can get to services.”
- “AppalCART is overcrowding. Wal-Mart is basically a park and ride lot right now. Boone Mall gets a lot of the same.”
- “AppalCART looking at Monday-Friday routes for County”

Greenway System

- Greenway system needs to be expanded to provide more transportation functions, i.e.- segments which allow students and others to get to places they need to be as well as providing a healthy quality of life factor.”

TRANSPORTATION CHOICES

- “Need to follow through on the greenway system”

Street Construction Standards

- “A lot of private streets being created and then being turned over to the Town down the road and they are inadequate.”
- “Not enough base being put under roads. . .especially with the weather and traffic here the standards aren’t good enough.”

Other Issues

- “Need to require bicycle parking”
- “Traffic enforcement is abysmal”

RECOMMENDATIONS

While many of the observed and stated transportation issues in Boone relate to the level of motor vehicle congestion and traffic, the most realistic solutions for Boone will have more to do with appropriate land use and development; incentives for using alternative modes of transportation such as carpooling and transit and other measures to manage the demand for roadways; and provision of high quality transit and bicycle and pedestrian mobility options. The opportunities for building roadway capacity and networks to mitigate congestion are very, very limited and costly in the High Country environment and very long term solutions, such as the unfunded US 421 by-pass, which has been in the planning stages for decades. Regardless, roadway projects do not really solve congestion problems; they just defer them to a later date or another location and often actually induce more motor vehicle travel.

Boone is already doing an outstanding job on the transit front. One of the Town’s greatest Smart Growth achievements is the AppalCART transit service. The service went fare-free in July 2005 when Town agreed to pay costs of non-students. According to Chris Turner, Director of the AppalCART, ridership went up 21% that year and another 13% in 2006. In 2006, AppalCART provided more than 900,000 passenger trips. Ridership in the early months

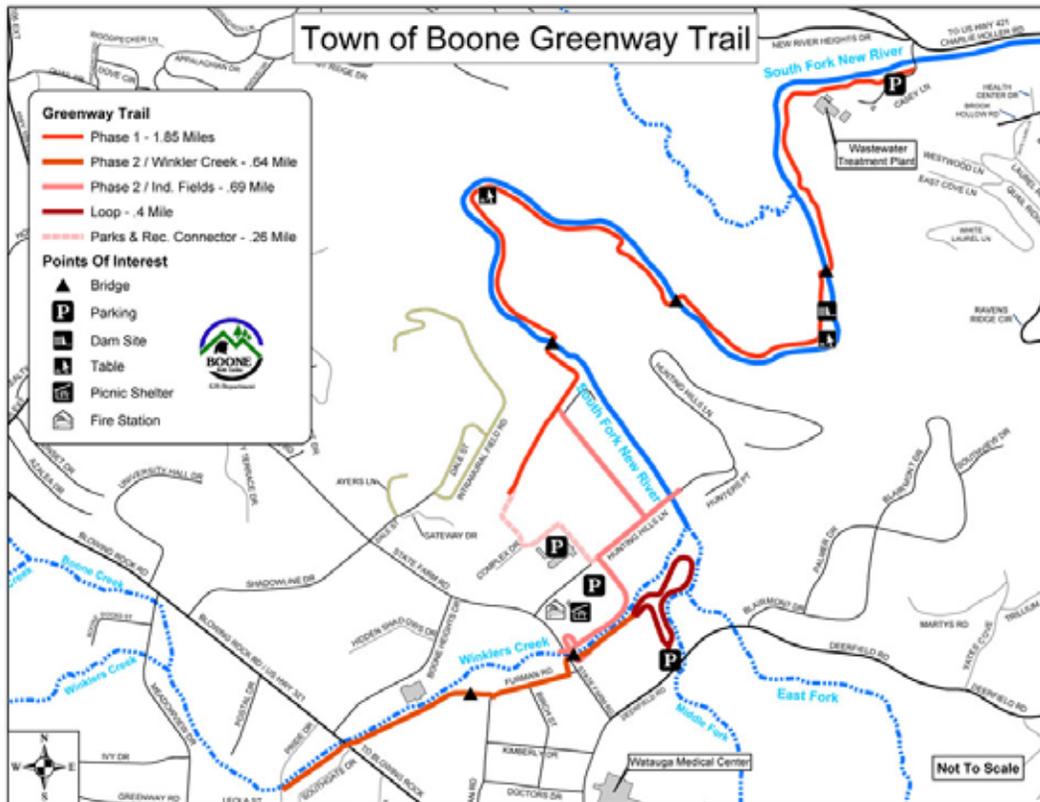
of 2007 are up and the service might break a million trips this year. AppalCART is planning a new facility. Right now the service cannot get any larger, but after the new facility is operational AppalCART plans to expand with increased fleet size, shorter headways and more routes. The biggest issue for AppalCART now is overcrowding, which is a good problem for a transit system to have.

The next frontiers for Boone on the Smart Growth transportation front are two fold. First, to promote more compact, walkable development, which enables “. . .people [to] drive 20 to 40 percent less, at minimal or reduced cost, while reaping other fiscal and health benefits.” (Ewing, et al. p. 14) The second is to provide the highest quality environment possible for walking, biking, and using transit, and other alternatives to single-occupancy vehicles. These two strategies will not only facilitate a more efficient, affordable, and convenient environment, but will also move Boone from an “abysmal” place to walk or bike to an even more attractive place to live, work, study, and visit. At the same time, the Town should continue to work locally and with the State to make the existing roadway infrastructure more safe and efficient for all users.



The fare-free AppalCART service is one of Boone’s greatest Smart Growth achievements.

TRANSPORTATION CHOICES



Plans for updating bicycle and pedestrian plans should include connecting to and expanding the greenway system.

UPDATE THOROUGHFARE PLAN AND PREPARE MASTER PLAN FOR TRANSPORTATION

Like land use, transportation planning works best with a long range plan for future investment and development. Part of a town-wide master planning effort could and should include a transportation element. This could include or become the basis for an updated Thoroughfare Plan. The current Thoroughfare Plan was developed in 1991 and does not reflect the community's current situation or current goals. The policies in the Thoroughfare Plan are largely based on plans for increasing capacity for automotive travel to and through Boone.

BOONE SMART GROWTH AUDIT

Part of the transportation planning effort should include a plan for collector streets. Connected local streets are critical to the transportation network and to active modes of transportation, but just as important is an evenly spaced network of collector streets that provide access from the local streets to the major arterials. Collector streets carry less traffic, have lower speeds, travel shorter distances than arterials, and help take traffic pressure off of major and local streets. They also provide attractive route alternatives from neighborhoods to major activity centers for motorists, transit, cyclists, and pedestrians.

Although the opportunities for new collector streets in Boone will be limited by topography, such a plan would provide a mechanism for the Town to protect and provide for key alignments as new development or redevelopment occurs. A collector street plan should be used to preserve and suggest the general location of future connections. As new developments are proposed, Town planning officials can use the plan to reserve right-of-way for and/or require the construction of new collector streets. In many cases, collector streets can be wholly or partially built by private developers.

UPDATE PLANS FOR TRANSIT, PEDESTRIAN, & BICYCLE INFRASTRUCTURE

Mentioned throughout the *Comprehensive Plan Update* and other documents reviewed for this audit and in frequent comments from stakeholders is the desire for more and better options for bicycling and walking throughout the Town. People want more sidewalks, more bike lanes and bike paths, and more greenway/multi-use path connections linking the places where people live with the places that they go to shop, work, or recreate. Not only are such types of infrastructure conducive to cheaper, more efficient, and healthier transportation, they are also less expensive to provide than other transportation infrastructure. Recent national surveys have shown that such facilities are among key determining factors for people when choosing a place to live.

TRANSPORTATION CHOICES

This report recommends that as part of long range land use and transportation master planning for Boone, the Town update its plans for transit, pedestrian, and bicycle facilities. The Walk Boone effort is an excellent first step in this process. AppalCART is also planning to expand its routes and services.

Plan updates should include greenway linkages, on-street facilities such as bike lanes and sidewalks, as well as off-street facilities such as bicycle and pedestrian connections between existing residential neighborhoods and across waterways. Such a network should be implemented through the development process and as opportunities and funding arises through roadway projects or other capital funding.

ESTABLISH RETROFIT CONNECTIVITY PROGRAM

In order to expand and enhance the existing transportation network, especially for pedestrians and cyclists, Boone should consider a funded program to identify, prioritize, and construct bicycle and pedestrian connections between existing neighborhoods and other developed areas.

Such projects might entail the construction of a pedestrian bridge across a creek, linking two cul-de-sacs with a path, or connecting stubbed streets. These retrofit connectivity projects are relatively inexpensive when compared to traditional transportation projects, but have far reaching active living and transportation benefits when a short connection can provide access to many miles of the transportation network that were previously unlinked. These projects should connect to and take advantage of planned and existing greenways and on-road bicycle and pedestrian facilities to create an extensive non-motorized transportation network that includes but does not rely heavily on major arterials.

REQUIRE BICYCLE PARKING FOR NEW DEVELOPMENT

Improved access for pedestrians and cyclists to services, employment/ education, recreation, and other destinations will contribute to the Smart Growth environment in Boone. For bicycles specifically, however, access alone is not enough. Like motorists, cyclists need a safe and convenient place to park their vehicle at their destination. Also like motorists, cyclists are not as likely to frequent a destination where there is not enough or unsafe parking. The Chicagoland Bicycle Federation says, “Fear of having a bicycle stolen is one of the biggest deterrents to people riding to their favorite destination. Providing parking also lets cyclists know that they and their bikes are welcome.” (www.chibikefed.org)



Like motorists, cyclists need a safe and convenient place to park their vehicle at their destination.

TRANSPORTATION CHOICES

The *Comprehensive Plan Update* says that “. . .site planning that incorporates secure bicycle storage. . .shall be required. . .” (Section 2.2.1.B). This provision has not made it into the UDO requirements yet, however. Just as the provision of motor vehicle parking has been shown to induce driving, the provision of safe and convenient parking for bicycles can have the same effect on bicycling. Bicycle parking can be provided at a fraction of the cost of automobile parking and in a fraction of the space—10 to 12 bicycles can be parked in the area of one car parking space at a cost of tens of dollars per bicycle space versus hundreds or thousands of dollars per motor vehicle space. Boone should require bicycle parking for all multifamily and non-residential development. Different standards of bicycle parking are needed for short term visitors and customers and for longer term users like employees, residents and students.

PROVIDE BICYCLE PARKING AT EXISTING DEVELOPMENT

Existing destinations would not be affected by new bike parking requirements. For that reason, this report also recommends that the Town budget funds for the installation of bicycle parking for visitors and employees at key destinations. This would include public buildings and in the public right-of-way in areas where buildings are close to the street such as in downtown. Boone might also want to establish a program whereby the Town would provide free bike racks to requesting businesses who agree to install them and locate them correctly. A bike rack can typically be purchased for around \$100 and installed for not much more.

IMPLEMENT TDM MEASURES

Transportation Demand Management (or TDM) refers to a range of policies and programs to promote and incent the use of transit, carpooling, telecommuting, walking, and bicycling and to disincent the use of single-occupancy vehicles for trips. TDM measures are most often managed and implemented by employers, universities, or public agencies.

Currently, most employers and universities offer “free” or subsidized parking to employees or students who choose to get to work by private automobile. For example, while ASU, Boone’s largest employer and the single largest destination in Town, does charge for parking it is very likely that parking charges are too low given the unmet demand for parking facilities. The parking charges for students and faculty amount to a few hundred dollars a year or a few dollars a day. Meanwhile, the typical cost to maintain a parking space is on the order of \$1,500 dollars a year. This type of benefit is, in effect, an incentive to drive and a disincentive to use other modes of transportation.

Employers and universities across the country have found that paying employees the equivalent cash benefit of parking charges to not drive to work actually is cheaper than paying to provide employee parking. Furthermore, it reduces the number of employees who choose to drive alone to work and therefore increases the number of employees who choose other options including active modes. By providing incentives not to drive and increasing the cost of parking, communities and employers actually free up land for more productive development.

In the early 1990s, Stanford University began targeted TDM measures including giving a cash benefit to employees who did not purchase a parking permit and increasing parking fees 15% per year. As a result, the school has been able to save land and money that would have been dedicated to parking structures and instead built 2 million square feet of new buildings and had no increase in motor vehicle traffic to campus. (Toor)

This report suggests that the Boone help to facilitate coordinated measures between the Town, ASU, Watauga County, the High Country RPO, and major employers including the hospital to promote and incent transit ridership, carpooling, park-n-rides, telecommuting and bicycling and walking. These entities might

TRANSPORTATION CHOICES

consider jointly funding a staff person whose job it would be to coordinate such efforts in the area. Already, great strides have been made with the transit system, but there is much left to do including ride matching, personal trip planning for people who are unfamiliar with the available transportation options, and educating employers and commuters about formal and informal TDM programs.

DEVELOP STANDARDS FOR STREETS RELATED TO THE DEVELOPMENT CONTEXT OF THE AREA

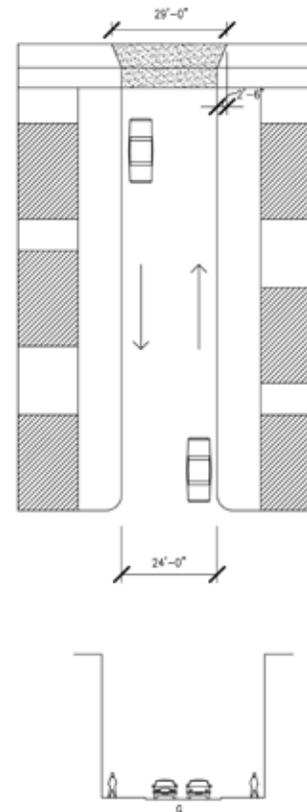
In the United States, the street is our most prevalent public space. Current standards such as those promulgated by NCDOT have engineered these into car-only corridors. However, as the largest public investment of any community, this infrastructure should strive to serve all roadway users—including pedestrians, cyclists, and motorists—and property owners who front on the street.

In general, this report recommends that the Town adopt and require new street design standards for all streets that are to be built by local developers or the municipality. The design standards should include requirements for appropriate pedestrian, bicycle, and landscaping infrastructure based on the land use context and the type of street.

Boone’s relatively narrow minimum street pavement widths are excellent by Smart Growth standards, although additional street types need to be specified (including alleys and collector streets) as well different street sections for different conditions (rural vs. urban) and different required amenities (such as the provision of sidewalks, on-street parking or bicycle facilities). For collector streets, the face to face dimension can be as narrow as 20 feet if no on-street parking is allowed. A 34-foot collector can accommodate bike lanes and/or on-street parking. The street width can be even narrower if 18-inch curb and gutter is used.

Likewise, the Town should provide definitive requirements regarding where curb and gutter is required and where swales are allowed. This determination should be based on development and environmental context, street type, and density. For example, rural, low density roads typically have swales. Denser, more urban conditions have curb and gutter. Roll type curb and gutter (or valley gutter) should be discouraged as it encourages parking on the sidewalk. (Staff has recommended that roll type curb and gutter be eliminated from the UDO.)

Commercial Alley 24 ft Easement



Additional street types—including alleys and collector streets—need to be allowed and specified in the UDO.

TRANSPORTATION CHOICES

IMPROVE ROADWAY CONNECTIVITY STANDARDS

Improving connectivity and limiting cul-de-sacs results in improved mobility for motorists, pedestrians, and cyclists; decreased response time for emergency services and delivery costs for services such as garbage collection through improved routing options; and, improved water pressure and maintenance from the ability to loop lines through a development rather than have to rely on less efficient dead-end pipe runs.

Traffic studies have shown that highly connected street networks provide much greater traffic capacity and mobility for a community at less cost. A high degree of connectivity should occur not only at the level of thoroughfares, but also on collector, local and other secondary roads. Such connectivity vastly improves a street network's performance. While roadway connectivity is challenging in the High Country environment, the Town's goal should be to promote roadway connectivity to the maximum extent possible.

The UDO currently provides very vague connectivity requirements, which need to be made more objective and more definitive with measurable standards for when connections are required. In addition, some of the requirements for street layouts go completely counter to the Smart Growth principles. For example, Section 238 of the UDO says that "cul-de-sacs and loop streets are encouraged" and it allows residential blocks up to 1800 feet long (more than a third of a mile). Block length and intersection spacing standards for arterials should be based on the context of development and density. In low density residential areas, blocks may appropriately be 800 to 1000 feet. In highly compact, pedestrian environments, intersections should be spaced 200-400 feet apart.

The UDO should also provide definitive standards for when cul-de-sacs and other permanent dead-end streets are allowed. Otherwise, they should be discouraged and an objective connectivity requirement explored.

REVISE & ENHANCE TIA REQUIREMENTS

The current UDO provisions for Transportation Impact Analyses (TIA) do not include discussion of the types of improvements that will be required. The UDO should provide specifics as to the TIA process and include requirements for improvements to transit, walking, and cycling and incentives/requirements for measures to reduce motor vehicle use in new development.

A Transportation Impact Analysis (TIA) is a specialized study that evaluates the effects of a development's traffic on the surrounding transportation infrastructure. It is an essential part of the development review process to assist developers and government agencies in making land use decisions involving annexations, subdivisions, rezonings, special land uses, and other development reviews. The TIA helps identify where the development may have a significant impact on safety, traffic and transportation operations, and provides a means for the developer and government agencies to mitigate these impacts. Ultimately, a TIA can be used to evaluate whether the scale of development is appropriate for a particular site and what improvements may be necessary, on and off the site, to provide safe and efficient access and traffic flow.

TIA's are often required for developments that meet an estimated threshold for trip generation. A typical threshold range is 3,000 vehicles per day or greater during an average weekday based on a five day national average as defined in the ITE Trip Generation Manual. The Town would need to determine a threshold that is appropriate for Boone. The Town may also want to consider not requiring the TIA for development in targeted development or redevelopment areas as another way to incent development.

Typically the following developments meet or exceed the 3000 vehicles per day threshold:

- 55,000 square feet of retail

TRANSPORTATION CHOICES

- 300 single family homes
- 250,000 square feet of office
- 400,000 square feet of industrial
- 350 room hotel

APPLY (AND ENFORCE) APPROPRIATE URBAN SPEED LIMITS ON MAJOR STREETS

Speeding motor vehicles are a deterrent to pedestrians and cyclists and an extreme safety hazard to all roadway users. A pedestrian being struck by a motor vehicle is never good, but a pedestrian is very likely to survive such an incident if the vehicle is travelling at 20 mph, but is not likely to survive a crash as vehicle speeds approach and exceed 40 mph.

Boone has implemented traffic calming measures on local and collector streets both to reduce speeds and reduce cut-through traffic in neighborhoods. The Walk Boone report also recommended that the Town increase enforcement against unsafe roadway practices. This audit also recommends that the Town work with NCDOT to keep traffic speeds at appropriate levels on all streets including arterials. There are measures—including traffic signal timing, roundabouts, lane width reductions, on-street parking and others—that can help to keep traffic speeds at appropriate levels.

INITIATE EDUCATION AND ENCOURAGEMENT EFFORTS

Planning for walkable and bikeable communities typically includes five E's: Engineering, Enforcement, Education, Encouragement, and Evaluation/Planning. Most communities, if they spend any money, time, or effort on any of these E's, concentrate on Engineering for infrastructure and Enforcement by local police. Typically, very little money or energy is spent on Education or Encouragement, much less Evaluation, despite the fact that these efforts typically cost the least amount of money.

The Walk Boone report includes many good recommendations for promoting walking in Boone through enforcement, education, and encouragement. The Town, in cooperation with the University, the County, the RPO, NCDOT, and local advocacy groups, should have many resources and opportunities to promote walking, biking, and transit in Boone through such initiatives as:

- Town-wide events to promote walking, bicycling, transit. Consider competitive and fun events to raise awareness about these modes, such as a bike/walk/bus week. These types of events are held in cities throughout North Carolina and the U.S. One of the most fun and successful of these is Bike To Work Week in Victoria, British Columbia, but there are dozens of other models and Boone can create events that showcase local color and talent.
- Multi-modal transportation maps, showing key roads, bike routes, greenways, walkways, and transit routes.
- Bicycle education courses: Work with the University, advocacy groups, hospital and health groups, and law enforcement to teach adults and children to safely and effectively operate bicycles around Town.
- Safe Routes to School Events to promote efficient, healthy, and environmentally friendly modes of transportation to local schools. (20% roadway congestion is typically attributed to school traffic.)

Do you stop at stop signs while riding your bicycle?

Basic Street Skills for CYCLISTS

**Ride Safe
Ride Legal**

In just two hours, learn how to safely and confidently use your bicycle for transportation. Topics covered include how to avoid crashes and citations, improve visibility, ride between and through intersections, and learn your legal rights and obligations.

<p>2005 Class Choices</p> <p>All classes are held at: Marin General Hospital Conference Center 250 Bon Air Road, Greenbrae</p> <p>Thursday, January 27: 6:30 - 8:30 PM Thursday, March 10: 6:30 - 8:30 PM Thursday, May 12: 6:30 - 8:30 PM</p> <p>Approved by the Marin County Superior Courts for citation fee reduction.</p> <p>This safety program is funded by the Marin General Hospital Trauma Program.</p>	<p>How to Register</p> <p>Admission is FREE.</p> <p>Classes are open to individuals ages 16 and up. Advance registration is required. You won't need your bicycle unless you plan to ride it to the class.</p> <p>Provide your name, address, email, phone and class date in one of the following ways:</p> <ul style="list-style-type: none"> • On-line at www.marinbike.org • Fax to 415-456-9344 • Email to streetskills@marinbike.org • Call MCBC at 415-456-3469 ext. 3#
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Marin General Hospital
A Sutter Health Affiliate
 Marin County Law Enforcement
 MCBC

Poster for the Marin County, CA adult bicycle skills course, sponsored by a local hospital, an advocacy group, and the local law enforcement agency

Source: Marin County Bicycle Coalition, www.marinbike.org

TRANSPORTATION CHOICES



Pedestrians crossing Rivers Street.

ALLOCATE TRANSPORTATION FUNDING BASED ON SMART GROWTH PRIORITIES

Nationally, cyclists and pedestrians make up 13% of all roadway fatalities and 10% of all trips, but only 1% of all Federal transportation spending is directed to these modes (Source: America Bikes, www.americabikes.org). State and local spending for transportation tend to reflect this same trend.

The Town should compare at all of its current funding for transportation projects (including parking, resurfacing, maintenance, transit, etc.) against the population in the town that does not drive due to age, income, or physical disability (typically around 30%, although probably higher in a college town). Set a goal that funding for transit and active modes (i.e., walking, bicycling) begin to reflect that portion of the population, at least. The Town can also continue and expand requirements that new development participate in the costs and provisions of pedestrian infrastructure as suggested elsewhere in this report.

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9. MAKE DEVELOPMENT DECISIONS FAIR, PREDICTABLE, AND COST EFFECTIVE

VISION

- “Simplified, reader-friendly, Smart Growth-driven UDO”
- “Allow subdivision by-right with flexible design.”

STRENGTHS/ACCOMPLISHMENTS

- “10-day turn around on development review”

OPPORTUNITIES/CHALLENGES

Lack of Predictability

- “Hard to do by-right development”
- “Largest obstacle is lack of predictability; cannot find a land planner in town that will tell you what you can do with your property, since boards are turning down plans that adhere to the regulations.”
- “No property is changing hands because of the unpredictability of the development process.”
- “Hard to even look at comps in the area because nothing is changing hands. Atmosphere is such that it’s too political and the restrictions are so severe people just leave.”
- “If neighbors come to complain, project is dead.”
- “Inspection process: can get approvals and then there are changes. They come in and say that you are doing it wrong and then require a lot of changes which add up very quickly.”

Board of Adjustment (BOA)

- “Impediment is BOA; developers would rather go through rezoning process with Planning Board/Town Council than go before BOA.”
- “Need to look at make-up of BOA; need time exception for members.”
- “Shouldn’t have to be represented by attorney at BOA if not representing self (property owner)”
- “Allow SUP approval on simple majority vs. 4/5 vote.”

Timing of review/approval

- “Need 30 day preliminary inspections. When go for CO [certificate of occupancy], they tell you that you need 30 day inspection. Hard when it’s the most critical time.”
- “Increased review time to 10 days. However, no time limit on turn around for revised plans.”
- “Need to allow monthly public hearings; quarterly public hearings delay projects too long.”

Regulatory impacts

- “Need reasonable rules, regulations”
- “Affordable housing impacts on single-family homes: high costs of detention/retention, high cost of development in high country, other requirements at code inspection level beyond state requirements.”
- “Water impact fee (\$8000) killing small businesses; some feel that council uses water issue to decide what gets done.”
- “Regulation for doing site plans if you have just bought a lot speculatively is too excessive.”
- “Parking requirements are too excessive, for example a 2 bedroom unit requires 3 parking spaces.”
- “Tree protection ordinance is too excessive. Only based on size of tree; doesn’t include species or age of tree.”
- “Any subdivision is considered large: if you have 2 lots then it’s a large subdivision if you need water/sewer.”

DEVELOPMENT DECISIONS

UDO

- “User-unfriendly UDO: creates animosity towards Town.”
- “UDO is choppy and difficult to explain or follow. Many UDO standards are fairly subjective and hard for developers/residents to determine its scope or effect on proposals (i.e. - trees).”
- “Extremely hard to read through and understand things that are required.”
- “Permitted use table cumbersome and too many SUP’s required”
- “Different interpretations re: height requirements”
- “Appearance Commission recommendations don’t have any teeth.”
- “Eliminate FAR (floor area ratio) for density calculations.”

RECOMMENDATIONS

MAKE DEVELOPMENT STANDARDS CLEAR AND EASY TO INTERPRET

The format of the document that presents the development requirements is nearly as important as the standards themselves. Standards should be written in clear language as the legal standard will be tested by the interpretation of the text. Graphics, photos, and illustration should be generously included, but should be used only to supplement the text, not supplant it. Other basic publishing rules should apply as well including a readable typeface, consistent margins, balanced white space, and a thorough index.

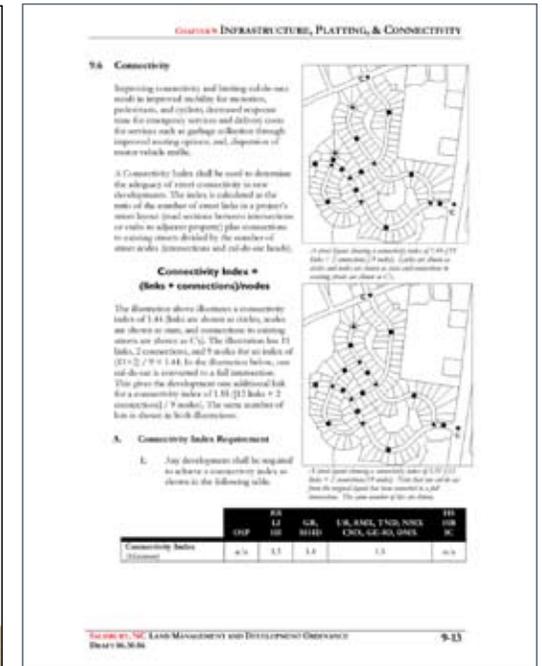
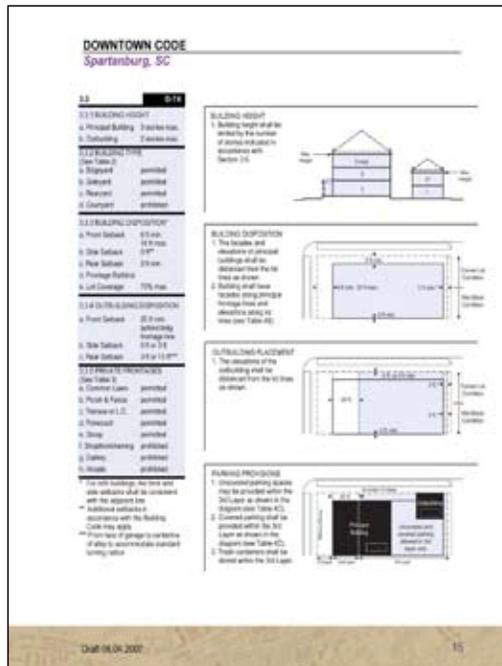
Boone has done an excellent job in preparing a UDO document that is easy to read and follow from a formatting and organizational point of view. It is one of the most legible documents of its kind that we have come across. While it could be greatly enhanced with illustrations of various standards, it is at least easy to find the various regulations. The web-based version of the UDO is also very accessible with a detailed outline and easily downloadable sections.

From a general interpretation point of view, one of the most important improvements to the UDO would be to provide consistent level of detail in requirements. There are many instances throughout the UDO where requirements are vague or not sufficiently detailed to provide an uninitiated developer with enough information as to what is expected. The TIA requirements are a case in point. There are also instances in the ordinance where the regulations are overly complex, such as the Schedule of Land Intensity Regulations; or where information is not clearly provided, as in the parking standards where uses are referenced by a number.

The Commercial Appearance Standards are a good standard by which other elements of the Ordinance should be measured in terms of clarity and user-friendliness. The Appearance standards are easily understood, objective, and well illustrated.



Illustrated standards from the Transect-based SmartCode model regulatory code.



The format of development standards should be clear and easy to read with photos, illustrations, text, and tables.

DEVELOPMENT DECISIONS

ALLOW BY-RIGHT DEVELOPMENT THAT MEETS COMMUNITY OBJECTIVES

Perhaps the most important Smart Growth tool in successful implementation of a code is the facilitation of permits. Requiring developers to adhere to strict design requirements, particularly in an area where they are relatively new, and then sending their development application through a rigorous public process is the equivalent of hitting them with two sticks.

In general, developers are much more willing to abide by intensive project design standards if they know that compliance will assure a permit. Well written regulations ensure a sense of predictability for both developers and the public.

When combined with an expedited permit process, Smart Growth-based codes will also incentivize developers to spend more money on important elements such as the building facade rather than on a prolonged public process and loan interest.

Parallel districts/floating overlays can be developed so that they have certain performance criteria established in order to qualify. If the threshold criteria are met (minimum development size, location in conformance with adopted plan, etc.), developers may have the parallel codes applied by-right and need not go through any public approval processes. Many Traditional Neighborhood Development (TND) ordinances are written in this manner.

There are many opportunities to streamline the development review and approval process in Boone. This is perhaps one of the greatest sticking points with the current UDO administration according to stakeholders, but also one of the Town's greatest opportunities for leverage. Once development regulations are crafted that meet the Town's Smart Growth objectives, the ability to provide expedited and administrative review and approval processes will provide a great incentive for projects to meet Town's goals.

Currently, administrative approval of by-right subdivisions or at least contingent review by a technical review committee would be more appropriate than review by the Board of Adjustment (BOA), especially when existing standards for denial are fairly subjective. (Staff's proposed Subdivision Amendments memo of 01/05 suggests removing the Special Use Permit process for subdivisions and allowing the Planning Commission to approve minor subdivisions. The amendments also suggest removing administrative approval process by the Planning Director.) The BOA appears to be involved in far too many approvals of Special Use Permits for uses that could be permitted by-right. Staff has proposed to review and eliminate many of these SUPs.

This audit recommends that the Town first begin to revise the regulatory requirements in areas that are not currently meeting community objectives. Meanwhile, and in exchange, the Town should look for as many opportunities as possible to streamline the development review process for preferred development types.



Flow chart showing the development review process for major subdivisions in Salisbury, NC.

DEVELOPMENT DECISIONS

PREPARE USER-FRIENDLY DOCUMENTS & FORMS

Boone already has very professional and efficient application forms. They are well detailed with instructions and very accessible via the Internet. As the Planning Staff updates application forms for applicant use with any updates to the UDO, the forms will be more user-friendly if, in addition to the required information, the forms also include information about the UDO requirements. For example, a variance application should carry information related to the process of review (meeting dates, submittal deadlines for year) as well as the relevant provisions mentioned in the code (verbatim). In this manner, the applicant can leave the office with an application complete with the appropriate UDO provisions, relieving the applicant from the need to research the ordinance. The application form becomes a multi-dimensional document (including checklist of items required) complementing the user-friendly ordinance.

CREATE FACT SHEETS AND OTHER INFO ABOUT DEVELOPMENT INCENTIVES AND OTHER SMART GROWTH-ORIENTED PROGRAMS

Boone has good examples of informative brochures for programs such as the steep slope regulations and water conservation programs. These are easily accessible via the internet. As the Town develops other development and incentive programs, marketing them to the public and potential developers will go a long way towards helping new and existing citizens and investors understand community goals. In the words of Tim Keane, former Director of Development and Neighborhoods for the City of Charleston, SC, “My biggest problem is the last person who moved into town. . .it’s a constant education process.”



Fact sheets and info about the Town's Smart Growth programs will go a long way towards helping citizens and investors understand community goals.

DEVELOPMENT DECISIONS

MAKE IT EASIER, FASTER, AND MORE COST EFFECTIVE FOR GOOD DEVELOPMENT PROJECTS TO GET APPROVED, AND OFFER INCENTIVES AND FLEXIBILITY TO GET BETTER DEVELOPMENT

Once communities have reformed their regulations to allow good development, they should make it easier for it to be approved. Predictability in the development process is valuable to everyone concerned: developers, local government, and community members. Laying out the guidelines and rules for what the local government considers a “good” development project makes the process more predictable and fair, as does defining the benefits developers will get from meeting or exceeding the community’s standards. Two main ways to favor good projects are to offer them flexibility and to speed the approval process.

Flexibility in meeting requirements gives developers room for innovation and creativity, as well as cost savings. If a development project meets or exceeds the community’s goals and vision, the developer should be rewarded with, for example, a density bonus that allows them to build more in exchange for providing an amenity the community wants, like affordable housing.

Alternatively, local governments can calculate the traffic reduction benefits of a development and adjust accordingly how much parking, road improvements, or air-quality mitigation the developer needs to deliver. Developers tend to favor an approval process in which projects that follow certain guidelines or are located in targeted areas get streamlined or fast-tracked approvals. Communities might guarantee review of the project within a certain amount of time, or they might coordinate the various departments that need to review development proposals so that review happens quickly and smoothly.

Of course, the process must include several opportunities for meaningful public input and review and must ensure compliance with other environmental safeguards. Some communities do this by setting out specific desirable criteria; any development that meets these criteria gets a fast track to approval. With the advent of the LEED-ND green development guidelines, communities have a good starting point for setting standards to define walkable, environmentally responsible neighborhoods.

In Austin, Texas, the city developed a matrix of Smart Growth criteria to help it analyze development proposals within areas where it wants to encourage development. The matrix measures how well the project meets the city’s goals, including the location of the project, its mix of uses, its proximity to public transit, its pedestrian-friendly design, compliance with nearby neighborhoods’ plans, and other policy priorities, including tax base increases. For projects that score above a certain level on the matrix, the city will waive some fees or invest public money in infrastructure for the development.

In other places, an outside organization plays a similar role, setting up a list of criteria and offering public support for projects that meet those criteria. For example, the Greenbelt Alliance in the San Francisco Bay Area will endorse developments that are “pedestrian-oriented and transit accessible, use land efficiently, and provide affordable housing.” The Greenbelt Alliance will send a letter of support to the appropriate officials and actively support a project at public hearings if requested. Similar programs, with varying degrees of endorsement, are run through alliances in many other regions. While this outside support doesn’t guarantee a faster process, the stamp of approval from a neutral entity can help some projects get approved.

Excerpted from Ewing, et al, Growing Cooler: The Evidence on Urban Development and Climate Change. ULI, 2007.

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10. ENCOURAGE COMMUNITY AND STAKEHOLDER COLLABORATION IN DECISION MAKING

VISION

- UDO that respects the community's work reflected in plans

STRENGTHS/ACCOMPLISHMENTS

- Local non-profits and advocacy organizations for land use and environmental issues: Mountain Keepers, Partnership for Watauga's Future, High Country Conservancy, Appalachian Voices
- Intergovernmental retreat among County elected officials
- Numerous citizen boards and committees

OPPORTUNITIES/CHALLENGES

- "Balancing competing interests"
- "Need UDO to respect the work of citizens in the Town's plans"
- "Public dialogue on development proposals occurs too late: after project design"

Leadership issues

- "Need to educate elected officials and public on true Smart Growth. It's not pretty buildings or deflecting growth. Need the buy-in to density."
- "Feel like the Town's definition of Smart Growth is not to grow at all."
- "Broader participation on town boards and committees. Town

- Council is overly represented with 2 members on each."
- "Need cooperation of Town officials"
- "Need an atmosphere of encouragement, not disablement, even in the process of construction; would be helpful to have more guidance."
- "More cooperation and coordination with the Town (Council and Town Manager)"

Relationship between Boone & ASU

- "Stormwater management on campus"
- "Friction around new education facility: will compound all problems"
- "Pressure on town's traffic and parking from ASU"
- "State owned land, growth of the university and the impact it's going to have on the Town. ASU's continued acquisition of land and the Town's inability to meet demands for growth in terms of housing, etc."
- "University growth and larger student body: negative effect on tax base."
- "University seems to be able to do whatever they want"

Regional issues

- "Role of Boone in Watauga County"
- "Fear of floodplain rising here as development happens in the County because it all drains here. Increased need for Regional Planning collaboration."
- "Talks about a regional water system. Ashe County was not interested."

Issues of Growth & Change

- "ETJ needs to be better represented (i.e.- BOA, council)"
- "Real fault line between people who have been here their entire lives and the new people"
- "A lot of people don't want taxes to rise"
- "More mentality against regulations out in unincorporated area"

STAKEHOLDER COLLABORATION

RECOMMENDATIONS

Boone has a history of public involvement and engagement. 300 people attended the public workshop for the 1994 *Comprehensive Plan*; 850 people attended the kick-off public workshop for the *Alternative Transportation Plan* in 1995. Dozens more from a wide cross section of the community were involved in the development of the *Comprehensive Plan Update*. The Town also has numerous volunteer committees and has a robust cadre of local advocacy groups.

CONTINUE REGIONAL STAKEHOLDER DIALOGUE

From stakeholder comments, it is clear that one of the major needs in terms of collaboration locally is greater dialogue between the major governmental and intuitional interests in the area. There is a great deal of spoken and unspoken tension between the residents and leaders of Boone and the University. Seemingly, neither the Town or the University could survive—or at least not as well—without the other. There appear to be many significant areas of shared interests (including housing, transportation, water and other natural resources, and utilities, to name a few), but also many points of contention and difference. Opportunities such as a joint Town/University master planning process may provide important venues to discuss mutual interests and develop future visions and solutions together.

Similar dialogue appears to be needed between Boone and its partners in the incorporated and unincorporated areas of the County. As mentioned earlier, the County is also embarking on a comprehensive planning process, which may provide another opportunity for enhanced regional dialogue on some of the issues identified in this audit.

USE CHARRETTES FOR KEY COMMUNITY PROJECTS

While the principles of Smart Growth tend to favor more streamlined and administrative processes for development approvals,

public input and dialogue is still very crucial to planning for and responding to growth and development. The key is to front-load the public input to establish community vision and buy-in for the types of development that are appropriate for Boone. This can be done through community-wide land use plans or through small area and neighborhood plans. When stakeholders can have a say in what is the desired form of growth, development, or conservation, development approvals can often be easier and less politically contentious.

The Lawrence Group and similar planning and design firms ascribe to a process of intensive multi-day, multi-disciplinary, open public planning and design workshops commonly known as charrettes. The charrette process is a proven method to establish a common community vision involving multiple stakeholders with maximum public input in a very condensed amount of time. The process can be scaled to the level of a county or a town or to an area as small as an individual block or building.

Charrettes, or shortened versions that are workshops of 2 days or less, can also be used to get input on public projects such as the redevelopment of a publicly owned site; or for private projects such as a development proposal that is seeking public approval. The key to public input in the Smart Growth paradigm is to get lots of meaningful public input at the beginning of the process rather than at the end when the important decisions have already been made.

CONTINUE COMMUNITY DIALOGUE ON SMART GROWTH THROUGH EVENTS, EDUCATION, SPEAKERS, ETC.

Finally, this report recommends that the Boone community continue the good work that it has been doing over the last decade or more to seek out best practices and best practitioners from around the region and the country in the arena of Smart Growth. Continue to make trips and bring in speakers, including developers, to contribute to the local knowledge base on Smart Growth options.

STAKEHOLDER COLLABORATION



WHAT IS A CHARRETTE?

A charrette consists of an opening presentation, numerous public meetings, design sessions, evening pin-up sessions, and a closing presentation over a multi-day period. This time period gives a design team the most efficient opportunity to meet with a large number of interest groups and citizens, gather their vision, and produce a detailed series of high quality recommendation, plans and renderings that accurately reflect the vision of the community.



LISTEN PLAN REVIEW REVISE



There are four guiding principles for charrettes:

INVOLVE EVERYONE FROM THE START: Anyone who might have an opinion or be affected by the plan should be involved from the very beginning. By making people roll up their sleeves and work with the design team, the process gains mutual authorship and a shared vision.

WORK CONCURRENTLY AND CROSS-FUNCTIONALLY: The design team should have many different specialties, but during the charrette, everyone becomes generalists, assimilating everyone's expertise and reflecting the wisdom of each participant.

WORK IN SHORT FEEDBACK LOOPS: The public needs to be able to propose an idea and see it designed for review in a short period of time. The charrette process typically includes pin-up critique sessions every evening to garner input on the preferred direction based upon what was learned during the day.

WORK IN DETAIL: Only through designing to a level of detail that includes both the details of building types, blocks, and public spaces as well as the big picture of circulation, transportation, land use, and major public amenities can fatal flaws be reduced or eliminated.



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APPENDIX

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COMPREHENSIVE PLAN

2006 COMPREHENSIVE PLAN UPDATE

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
2.1 THE ECONOMY 2.1.1 Economic Development				
Y	5, 6	A. protect and enhance a high quality of life, image, cultural amenities, and natural beauty as the most effective, long term component of an economic development strategy. A.1 Amend development regulations to insure aesthetic quality and natural beauty. A.2 Adopt hillside development regulations. (Complete) A.4 Balance economic development with environmental quality.	Commercial appearance standards adopted. Steep slope regulations adopted.	direct & indirect
Y	5	C. The Town shall encourage the development of a well-balanced tourism trade. . . . Investments in services, facilities, and proper growth management shall be employed in furtherance of this objective.		indirect
Y	7	D. Economic development efforts shall encourage the revitalization and reuse of currently unused or underutilized structures, sites and infrastructure . . . D.1 [Provide] flexibility [for] renovation and redevelopment. D.2 Urge the clean up process of 482 State Farm Road site	Historic Districts, downtown policies	indirect
Y	9	E. The Town shall encourage a public service and regulatory environment conducive to business recruitment and expansion, while . . . enhancing . . . physical and human resources. E.1 . . .make development regulations and permit procedures more predictable and timely. Evaluate opportunities for administrative review and permit issuance.	offer expedited review as an incentive for projects that meet Town's objectives	direct
Y/N	1	G. The Town shall support the development of new business parks.	Should be identified in context of town-wide strategic land use plan. Employment locations should be developed with an eye towards accessibility to worker's place of residence, transit access, etc. so as to be consistent with other SG principles regarding land use and transportation	indirect
Y	1, 7	H.1 Direct [potential developers and business prospects]. . .to identified locations in the community.	Should be part of detailed land use planning/visioning effort	indirect

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	3, 4, 8	K. Boone shall identify and provide services consistent with the needs of the area's growing retiree population.	Neighborhoods with walkable and transit accessible goods and services are one of the most important factors for supporting senior independence.	indirect
2.1 THE ECONOMY 2.1.2 Commercial Development (including Rental Housing)				
Y	1, 4, 5, 7, 8	A. Uncontrolled strip development along the area's through streets shall be prohibited. A.1 Minimize driveway cuts and require that adjacent parking lots be connected.	Town has implemented good access management standards through the Commercial Corridor Overlay district, although these could be enhanced. Direct higher density development to centers through changes to zoning regulations and zoning map.	direct
Y	1, 4,	B. Commercial and Office Development shall be encouraged to locate in planned shopping centers, office parks and mixed use developments to stop the proliferation of strip development. B.1 Review the Town's zoning text and map with the objective of reducing the negative impacts of typical commercial strip development.	Develop town wide land use plan to identify nodes/centers of commerce.	direct
Y	1, 4, 7	C. Community/Commercial Centers shall be located adjacent to a major street and contain or be adjacent to other appropriate community facilities.	Develop town wide land use plan to identify nodes/centers of commerce.	direct
Y	1,4, 7, 8	D. Automobile Orientated Neighborhood and Convenience Commercial Centers shall be encouraged to locate on a collector street or secondary street at its intersection with a major street.	Develop town wide land use plan to identify nodes/centers of commerce.	direct
Y	1, 4, 7, 8	E. Residentially scaled and designed neighborhood businesses may be a planned element of newly developed or redeveloped neighborhoods.	Identify appropriate locations for centers of neighborhood-serving mixed use districts	indirect/ direct
Y	7	F. Commercial uses may be encouraged to develop by consolidation and expansion of existing commercially zoned property. . .	Allowing greater density on commercially zoned property will help with this cause.	direct
Y	5	G. Effective buffering and/or landscaping shall be provided where a large scale or automobile-oriented commercial or office use adjoins an existing or planned residential use.		direct
Y	5	H. Encroachment of incompatibly scaled and designed commercial or office uses into viable existing or planned residential areas shall be prohibited. H.1 Amend the zoning map to provide appropriate commercial zoning in transitional areas that do not encroach upon established neighborhoods.	Identify appropriate locations for centers of neighborhood-serving mixed use districts	direct/ indirect

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	1, 5, 7,	I. Office and institutional development may be encouraged as a transitional land use between residential areas and higher intensity commercial activities.	Develop town wide land use plan to identify nodes/centers of commerce.	indirect
Y	2, 5	J. Highway Oriented Commercial uses shall be clustered along segments of major streets and contain land uses which are mutually compatible and reinforcing in use and design. Design factors shall include, at a minimum, shared parking and street access, convenient pedestrian and vehicular movement, and consistent sign standards. J.1 [Develop] architectural design standards for commercial development throughout the Town's planning area. J.2 [Supplement] the highway corridor overlay district to include: 1) attractive signage, and 2) build-to lines with parking in the rear.	The Town has developed good Commercial Design Standards and has recently adopted the Mixed-Use Districts, which apply many good pedestrian-oriented standards to new development.	direct
2.1 THE ECONOMY 2.1.3 Industrial Development				
Y	1	B. Industrial development shall be located on land which is physically suitable . . . Advanced planning for the identification of such land shall be encouraged. B.1 Review the town's zoning maps to determine the appropriate location of existing and future light industries.	Develop town wide land use plan to identify locations for industrial development.	indirect
Y	1, 5, 7,	E. Light industrial uses may be located in or near existing built up areas to take advantage of available services and to minimize home to work distances. Careful design and or buffering may be required to ensure compatibility with surrounding areas. E.1 Through the development review process, ensure that warehouses, storage and distribution facilities provide adequate buffering and landscaping along highly visible major streets.		direct

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
2.1.4 AGRICULTURAL & RURAL DEVELOPMENT				
Y	5, 6	A. Farms and woodlands shall be recognized as an integral part of the planning area's open space system. A.1 Comprehensive rural area conservation strategy, to include rural area density standards, tax incentives, conservation easements, and other means. These areas should be considered in the planning for pedestrian ways, bikeways, greenways, and other open space needs.	These should be considered in the context of a land use strategy plan and recreation/open/conservation area plan	indirect
Y	2, 6, 7	B. Agriculture, forestry and low density residential activities shall be the preferred land uses in the Rural Area. B.1 Employ the Town's water and sewer extension policies to encourage a compact development pattern. B.2 Contain new urban area development within the designated Urban Services Area.	The Town has made good progress in this direction with the Growth Strategy Map. This map could be further detailed with a land use strategy plan. The Town is considering using water resources as an incentive for multi-family development, although additional efforts could be made in this arena. For example, making water/sewer rates more attractive for in redevelopment areas versus new service areas.	indirect
Y	5, 6	C. Rural Area lands having a high productive potential shall be conserved. . .for appropriate agricultural use.	Land Use Plan, zoning map	direct
2.1.5 DOWNTOWN				
Y	5, 7	A. A compatible design character for the downtown area. . .shall be identified, reinforced and supported to put forth a quality image and sense of place. A.1 Prepare an overall landscape strategy for the public right-of-way. A.4 Establish specific architectural and design standards for downtown consistent with its location, setting, and various functions.	A downtown master plan is needed and has been recommended by staff and stakeholders. Many of these policy recommendations for downtown could be implemented through such and effort.	indirect/ direct
Y	1, 2, 7, 8	B. The Town. . . shall encourage public and private efforts to develop. . .adequate and appropriately designed off-street parking lots in the downtown.	Downtown Master Plan; Transportation Demand Management (TDM) plan; parking plan, including plans for publicly managed parking, parking pricing, and requirements for more publicly available parking.	indirect/ direct

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	1, 7	C. A variety of mutually compatible and supportive mixed uses shall be encouraged in the downtown area. C.1 Examine zoning ordinances and revise as necessary to encourage construction of buildings with residences over ground-floor businesses.	Boone has encouraged mixed-use development through the newly adopted Mixed-Use Districts. These could be enhanced based on the recommendations of a detailed downtown master plan.	direct
y	5	D. Public and private developments shall be encouraged to incorporate local artistry into public and semi-public spaces downtown.	<i>Downtown Boone Public Art Master Plan</i> completed	direct
Y	2, 8	E. Public and private development decisions in the downtown area shall exhibit a special concern for . . . pedestrian oriented character of the district.	Downtown Master Plan	direct
Y	7	F.3 Encourage private investment and seek public funding opportunities for downtown revitalization projects.	Downtown Master Plan	indirect
2.2 INFRASTRUCTURE				
2.2.1 TRANSPORTATION				
Y	4, 8	A.1 Evaluate design standards for new subdivision streets for possible provisions for street patterns and designs which would . . .allow for convenient circulation within the neighborhood, and provide multiple alternative outlets.	UDO's encouragement of cul-de-sacs contradicts this policy	direct
Y	4, 8	B. Planned systems of pedestrian ways, bikeways, greenways, and similar facilities shall be encouraged . . .	implement and update Alternative Transportation Plan; develop requirements and incentives for developing pedestrian and greenway infrastructure	direct
Y	4, 8	B. . . Site planning that incorporates secure bicycle storage at places of living, working or schooling, shopping, and gathering shall be required, where appropriate.	develop bike parking requirements	direct
Y	7, 8	F. maximize the use of existing streets. . .as a cost effective means of meeting area transportation needs. . .	coordinate with TDM and pedestrian, bicycle, and transit improvements	indirect
Y	1, 2, 4, 8	G. The operational success of the area's mass transit system shall be enhanced through the encouragement of compact, transit sensitive development patterns. G.1 Include provisions for transit stops, sidewalks and pedestrian ways, bikeways and secure bicycle storage in site plan standards.	land use plan; transit enhancement plan	direct/ indirect

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2006 Comprehensive Plan Update				
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Y	3	H. Policies that have the effect of reducing automobile dependency, use and congestion in the heart of the urban area shall be supported. H.1 Prepare educational information concerning the location and use of bikeways, greenways, the bus system, and other. . . alternatives to the automobile.	Walk Boone is an excellent beginning to this kind of effort. Can be followed up with updated plans for walking, biking, greenways, and transit as well as concerted TDM efforts including promoting and coordinating park-n-rides ride-sharing, transit access, parking pricing, and non-motorized modes.	indirect
Y	4, 8	I. Driveway cuts along major streets and roads shall be limited to allow these streets to serve primarily as safe traffic movement corridors or, alternatively, to maximize curb frontage for on-street parking.	Good access management standards in the Corridor Overlay District requirements, which could be enhanced with requirements for shared driveways and connected parking lots and construction of medians.	direct
		K. Encourage the development and use of park and ride lots		indirect
Y	4, 5, 8	L. All future road construction within the Town shall be examined for bike and pedestrian feasibility. L.1 Facilitate the development of central medians in the town's main roadways to assist in the creation of safe pedestrian crossings. L.2 Explore funding options for business, pedestrian, car, and bike friendly conversion of the center turn-lane of the new five-lane Hardin Street		indirect
2.2.2 UTILITIES				
Y	6, 7	A. Extensions of water and/or sewer services that could result in scattered, non-directed development and costly provision of other urban services shall be prohibited.		direct/ indirect
Y	6, 7	B. Water and sewer services shall be concentrated within the limits of a geographically defined Urban Growth Area.		
Y	6, 7	D. Water and sewer services shall not be extended to properties in the Rural Area (outside the Urban Growth Area).		
Y	6, 7	E. The Town shall employ incentives to encourage a concentration of intense urban type development within the Urban Growth Area.		direct

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	6	G. Long range planning for a possible stormwater collection and treatment system shall be supported, including the development of financial and regulatory strategies. G.1 Prepare a community-wide stormwater management strategy to address the future Implementation of NPDES Phase II program requirements.		direct and indirect
2.2.3 PARKS, RECREATION & OPEN SPACE				
Y	5, 6,	A. Future park development and open spaces shall be planned to provide for the rational and equitable distribution of recreation and open space opportunities within the planning area.		indirect
Y	5, 6	C. In determining future sites for park, recreation and open space facilities, multiple objectives for natural area conservation, visual enhancement, promotion of cultural and historic preservation, watershed and flood prone area protection shall be considered. C.1 Develop a master parks plan C.2 Establish public green spaces and parks in the downtown	Identification of appropriate locations for parks should be done in coordination with a community-wide land use strategy plan. Identification of downtown park locations should be coordinated with downtown master planning. Developing public spaces in downtown can be funded, in part, through in-lieu contributions from developers.	indirect
Y	5, 6	D. Land acquisition for new recreation sites in advance of need shall be encouraged to achieve desirable locations at cost effective levels. D.1 Prepare master parks and recreation plan to identify long term land acquisition needs. D.2 Establish a land dedication provision or fees in lieu of dedication provisions.	Coordinate with pedestrian, bikeway or greenway objectives.	indirect/ direct
Y	5, 6	E. Provision of open space and recreational facilities shall be encouraged in private developments and through intergovernmental and public/private partnerships.		indirect/ direct
Y	5, 6	F. The identification and appropriate development of a system of open space greenways within the planning area shall be encouraged for both recreational and alternative transportation purposes. F.1 Prepare a greenways action plan with the full coordination, leadership and input of a Greenways Citizen Action Committee.		indirect

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
2.2.5 ENVIRONMENTAL QUALITY				
Y	6	A. Development on ridgetops and excessive slopes shall be strongly discouraged. Where development is allowed, stringent performance standards shall be met. A.1 Prepare hillside and ridge-top regulations.		direct
Y	7	B. Support improvements to the public sewage collection and treatment facilities, with priority given to servicing existing or planned densely developed areas.		indirect
Y	6	C. Development activities in the 100 years floodplain or near lakes or streams shall be carefully controlled. Low intensity uses such as open space, recreation and adequately buffered agricultural or forestry activities shall be preferred.	Define environmentally sensitive preservation areas through a strategic land use plan	direct
Y	6	D. Runoff and drainage from development activities shall be of a quality and quantity as near to natural conditions as possible, with special emphasis given to critical watershed areas.	Include performance measures in development standards	direct
Y	6	E. Development which preserves the natural features of the site, including existing topography, streams and significant trees and vegetation, shall be reflected in the Town's Development Standards. E.1 Consider the use of innovative zoning techniques such as density bonuses and transfer of development rights in exchange for preservation of significant environmental features.		direct
Y	6	F. Innovative stormwater management techniques such as permeable sidewalks, driveways, and parking areas shall be encouraged.	provide incentives and requirements for such treatments and other low-impact development practices in the development regulations.	direct
Y	6	G. The development of a comprehensive storm drainage and flood plain management plan.	Also consider special stormwater management plans for sub-planning areas including downtown	indirect
2.3 THE COMMUNITY				
Y	5	A. Urban type development within the Urban Growth Area shall meet appropriate Town standards. A.1 Establish minimum architectural design standards for commercial development throughout the Town.	Town has developed good commercial appearance standards, however, these can be enhanced by making them more context sensitive based on the area (suburban vs. urban) and type of development (mixed-use, commercial, residential, civic).	direct

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	1, 7	B. Properly planned, mixed use developments that promote efficient provision of public services shall be encouraged within the Urban Growth Area.	The Town has established good mixed-use development districts for commercial areas. Suggested enhancements are discussed in the UDO section.	direct
Y	9, 10	D. Coordinated inter-governmental and university-town planning for urban area land use and development, transportation, utilities, recycling, environmental management, law enforcement, education, recreation, tourism and economic development shall be encouraged. D.1 Involve appropriate agencies, organizations, and citizens in the preparation of community-wide function plans including, for example, a master parks plan, a small projects transportation committee, water treatment expansion planning, the recycling program, a storm water management plan, anti-litter campaign, and other specific plans.	Consider joint master land use and transportation planning with ASU and Town	indirect
2.3.1 COMMUNITY APPEARANCE				
Y	5, 6	A. Measures to improve the effectiveness of grading, landscaping and buffering standards for new and existing developments shall be encouraged.		direct
Y	5, 6	B. The significance of street trees in providing visual relief, summer cooling, improved air quality and livability shall be recognized through public policies and actions to encourage their planting and maintenance. B.1 Expand scope and effectiveness of the Town's street tree planting B.2 Implement Boone's street tree master plan. B.3 Require new commercial and residential developments to plant trees in accordance with the Street Tree Master Plan and Walkways Long Range Plan.	Require street tree plantings between the sidewalk and curb for new development.	indirect/ direct
Y	5	C. The Town, along with private property owners and developers, shall work to jointly improve the appearance and design of major street corridors. C.2 [Establish] medians along those major roadways in Boone; [prioritize] locations where pedestrians must cross C.3 Prepare a plan for improving the appearance and function of at least one major highway corridor in Boone. C.4 [Prepare comprehensive] beautification plan		indirect

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
y	5	D. Sign policies and standards shall be periodically updated to enhance community identity and create a high quality business image. D.1 Conduct a review of the Town's sign regulations, including greater use of ground signs and directory signs.		direct
Y	5	E. The Town shall encourage public, private, and utility company efforts to place utility wires underground whenever feasible. E.1 Prepare a Master Plan for the placement of utilities underground		indirect
2.3.2 COMMUNITY CHARACTER				
Y	5, 7	A. The identification, restoration and active use of structures, buildings, monuments, and neighborhoods of historic or architectural significance shall be encouraged as a means of enhancing their economic and cultural value to the planning area. A.1 Conduct on-going assessments of critical locations in community deserving special attention by the zoning ordinance. Continue to encourage significant new public buildings and outdoor spaces to locate in these and other positions of visibility and strategic prominence. Encourage the private sector to do likewise. A.2 Seek out locations of historical merit in the community, and prepare an action plan for their enhancement, rehabilitation, or relocation.		direct/ indirect
Y	5, 7	B. Multiple and appropriate adaptive reuse of historic resources shall be encouraged. B.1 Amend development regulations to offer flexibility for restoration and active use of historic structures and other resources.		direct
Y	5	C. Wise development of the tourism potential of the area's architectural, historic, scenic and natural resources shall be encouraged. C.1 Consider the placement of public art at appropriate locations in downtown, including murals.	Coordinate with Downtown <i>Boone Public Art Master Plan</i> and any future master plan for downtown. Encourage murals as approved signage.	indirect/ direct

COMPREHENSIVE PLAN

2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	5, 6	D. The destruction of significant architectural, historic, scenic, natural and archaeological resources in the planning area shall be discouraged. D.1 Carefully scrutinize proposed road widening to ensure that such actions do not destroy community and neighborhood character. D.2 Continue to support the Town's tree preservation standards. Evaluate the effectiveness of the tree regulations.		indirect/ direct
Y	5	E. New development, redevelopment and rehabilitation of structures and sites shall occur in a manner which is consistent with the neighborhood and architectural context of the immediate area.	Develop context-based development and design standards for buildings and site design that are appropriate for different parts of the community.	direct
2.3.3 HOUSING & NEIGHBORHOODS				
Y	5, 7	A. The protection and rehabilitation of viable neighborhoods shall be encouraged to insure their continued existence as a major housing source and as a reflection of the area's image as an attractive, highly livable community. A.1 Evaluate impact of road widenings on the integrity of residential areas, pedestrian-oriented commercial districts, and the ability of bicyclists and pedestrians to function in the affected area. A.2 Prepare at least two neighborhood plans A.4 Establish a planning and development policy that protects older established residential neighborhoods		indirect
Y/N	8	B. Street system designs which discourage through traffic on purely local streets while allowing for free circulation within the neighborhood shall be encouraged. B.1 Update the Town's standards for subdivision street layouts, emphasizing circulation between neighborhoods and the ability of pedestrians and bicyclists to travel on back streets throughout the town. B.2 Seek and apply for at least one grant to provide for bicycle paths to connect residential areas with commercial and university districts.	Street connectivity has many benefits for dealing with congestion, service delivery and emergency response, as well as bicycle and pedestrian access. Such connectivity is in the interest of the Town's Smart Growth goals, but should be tempered with traffic calming and measures to encourage non-motorized modes and transit. Town should conduct a retro-fit connectivity study and seek to improve pedestrian/bicycle connections, where possible.	direct/ indirect

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2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	3, 5, 6	D. Innovative and flexible land planning and development practices shall be encouraged to create livable developments which better safeguard land, water, energy and historic resources. D.1 Continue to evaluate opportunities in the zoning ordinance for flexibly designed and located single-family and multi-family residential developments. D.2 Establish ongoing relationships with ASU's departments of Geography and Planning, Appropriate Technology, and Sustainable Development to develop, enhance, and implement efforts toward creating affordable housing, appropriate infill development, neighborhood livability standards, and design standards for multi-family development. This should include attention to lighting, bike and pedestrian pathways, and federal, state, and local funding sources.		direct
Y	3, 7	E. Factors in determining preferred locations for high density residential development shall include: close proximity to the university, employment or shopping centers; access to major thoroughfares and the transit system; the availability of public services and facilities; and compatibility with adjacent land uses. E.1 Review the zoning ordinance for the appropriate placement of high density housing near urban activity centers that are coordinated with transit system stops.	Should be based on detailed community-wide land use strategy plan. Zoning map for high density districts should be amended and development standards applied which base approval for high-density residential rezonings on various locational and environmental factors.	direct
Y	3	F. The affordable housing needs of area residents, particularly elderly and low to moderate income residents, shall be recognized in Town policies and actions regarding residential development.	Consider inclusionary housing requirements and/or incentives	direct
Y	1, 2, 7	G. Compact, full service neighborhoods, offering opportunities for living, working, shopping, and gathering places, shall be encouraged in newly planned developments, as well as for redeveloping areas.	Areas for such development should be identified in a strategic land use master plan and implemented through changes to the zoning map and standards.	direct

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2006 Comprehensive Plan Update				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y/N	2, 3, 7	H. The overall housing unit density for proposed infill residential development or redevelopment should be compatible with the average density of existing areas.	Achieving this goal will depend entirely on how “compatible” is defined. In many existing neighborhoods, the existing densities are too low to support “compact, full service neighborhoods” as noted in the policy above.	direct
2.3.4 PUBLIC INVOLVEMENT				
Y	10	A. Public involvement shall be encouraged in decisions concerning land use and development by making the public aware of proposed developments at the earliest opportunity, as well as fostering communication among developers, the Town, the County, the University, and the general public. ****		direct
Y	10	B. Neighborhood and special area planning shall be encouraged to foster public involvement in the production of closely tailored, action oriented special area plans and programs.	Neighborhood plans can be used to determine “compatible” infill densities.	indirect
Y	10	D. Special committees, advisory panels, educational forums, public workshops, leadership seminars, town meetings and media contacts shall be encouraged and fostered to enhance the effectiveness of citizen involvement in community planning and action. D.1 Hold an annual Town Meeting to hear citizen concerns about growth and development and the progress made. In addition to the annual Town Meetings, consider special workshops, open houses and a newsletter or annual report to keep citizens involved and informed about the future of the town and the action being taken. *****	The Town is doing a good job of creating a variety of opportunities for citizen participation through committees. Initiatives such as the recent Partnership for Watauga’s Future-sponsored forum on growth issues also further this goal.	indirect

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TOWN OF BOONE UNIFIED DEVELOPMENT ORDINANCE

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
ARTICLE VI PERMITS AND FINAL PLAT APPROVAL			
N	4, 8	Sec. 64 [e] Traffic Impact Analysis (TIA) requirements	Does not include discussion of the types of improvements that will be required. Should include discussion of improvements for transit, walking, and cycling and incentives/requirements for Transportation Demand Management measures.
Y/N	9	Sec. 84 Applications to be Processed Expeditiously	The language in this section is good policy/intent language, but more specifics, including incentives for expedited review for projects that meet the Town’s policy goals and Smart Growth goals should be included.
N	9	Sec. 94 Major Subdivision Approval Process [a] “The Town Council shall approve or disapprove major subdivision final plats. . .No major subdivision shall be approved until a special use permit has been authorized by the Board of Adjustment.” [d] “If the proposed major subdivision plat is located in a designated Water Supply watershed, the Planning Commission shall review the plat and find that it does or does not meet the requirements of this ordinance.”	Administrative approval of by-right subdivisions or at least contingent review by a technical review committee would be more appropriate than review by the Board of Adjustment, especially when standards for denial are fairly subjective. <i>(Staff’s proposed Subdivision Amendments memo of 01/05 suggests removing the SUP for subdivisions and allowing the Planning Commission to approve minor subdivisions. The amendments also suggest removing administrative approval process by the Planning Director.)</i>
ARTICLE IX ZONING DISTRICTS AND ZONING MAP			
N	3	Sec. 151 [b] R-1 Single Family Residential District	One of the largest zoning districts by land area in the Town does not allow for Accessory Apartments. <i>(Affordable Housing Task Force has recommended changes to this restriction.)</i>
Y	3	Sec. 151 [b] R-1A Single Family Residential with Accessory Apartment District	Excellent to have such a district, however, the locations and the limited extent of this district make its impact nominal at best.
Y/N	2, 3	Sec. 151 [e] R-2 Two-Family Residential District	Duplexes are common in single family neighborhoods around the country and are compatible with single family uses. They should be allowed by right in all districts that allow residential uses.
Y/N	1, 2, 3, 4	Sec. 151 [f] R-3 Multiple-Family Residential District	Good to have a higher density district, however, much of land zoned R-3 is too distant from existing centers of commerce, employment/education too promote walkability or even efficient transit access.
N	6	Sec. 151 [f] R-A Residential/Agricultural District	Allowed density and lot sizes (2 dwelling units/acre) allow low density sprawl and do not support preservation of agricultural uses or open space.

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
N	1, 2, 4, 5, 7	Sec. 152 [c] B-3 General Business District	Contrary to stated policies in the Comprehensive Plan, the B-3 district is strung out along all major roadways, promoting strip commercial development and providing more commercially zoned land than can probably be absorbed by the local market.
Y	1, 2, 3, 4, 7	Sec. 155 Mixed Use Districts Established "...established to introduced some residential uses into areas with commercial designations. . .and [to provide] options for pedestrian-oriented lifestyles."	Excellent Smart Growth standards. These could be the base standards for B-1 development, at least, and possibly B-2. The incentives for using these districts could be increased as the height bonus only yields 1 or 2 stories of additional development.
Y	4, 8	Sec. 158 Corridor Districts Established	Good access management provisions for preserving the safety/efficiency and walkability of commercial corridors. The provisions could be strengthened by incenting and/or requiring connectivity between parking areas and shared driveways. The language regarding connections between adjacent properties in subsection [12] provides no definitive standards for such connections.
Y	3, 5	Sec. 159 Neighborhood Conservation Districts	Good provisions for protecting existing neighborhoods. Additional parking fees could be considered, the proceeds of which could help fund neighborhood improvements.
Y	5, 6	Sec. 160 Viewshed Protection District	Good provisions for protecting the natural beauty of the High Country, which is so important to the area's identity, liveability, and economic well being.
ARTICLE X PERMISSIBLE USES, SECTION 165 TABLE OF PERMISSIBLE USES			
N	1, 2, 3	1.210 Primary residence with accessory apartment: not allowed in R-1 District	Allow accessory apartments in R-1 districts; change requirements for accessory apartments as proposed in 2006 staff recommendations. <i>(This has been recommended in the 07/07 memo of the Affordable Housing Task Force.)</i>
N	1, 2, 3	1.220 Duplex: not allowed in R-1, R-1A, R-R	Duplexes are common in single family neighborhoods around the country and are compatible with single family uses. They should be allowed by right in all districts that allow residential uses. <i>(The Affordable Housing Task Force's 07/07 memo recommended allowing duplexes in the RR district.)</i>
N	3, 9	1.300 Multi-Family Residences: most require special use permit for more than 12 units	Allow MF by-right in all districts where they are allowed or increase the threshold for SUP to a much higher number. A more effective approach than the SUP would be to create specific standards for larger developments. <i>(Town of Boone Central Business District Analysis and Recommendations recommends not requiring SUP for MF uses in B-1 if lower level commercial uses are proposed.)</i>
N	2, 3	1.320 Multi-family town homes: not allowed in R-2 Two Family Residential Districts	Townhomes are compatible with two-family homes and given the location of the existing R-2 districts near existing concentrations of retail and employment destinations, townhomes would be an appropriate building type to provide compatible, higher density in these areas.

Town of Boone Unified Development Ordinance			
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N	1, 5, 7	1.550 Bed and Breakfast Establishments: not allowed in business districts	Could be allowed as a compatible use, especially in B-1 and B-2 districts
N	1, 4	2.100 Commercial Retail: not allowed in O/1 2.300 Convenience Stores: not allowed in R-3, O/I, B-1 8.0 Restaurants, Bars, Night Clubs: not allowed in O/I	Convenience stores or other compatible convenience retail or service uses (e.g. dry cleaners, restaurants) should be allowed (limited in size and location with design standards) within walking distance of and/or within high density residential, employment, or mixed-use developments.
N	4	3.230 Banks with drive-in windows: allowed in B-1, B-2 8.400 Restaurants with drive-in service: allowed in B-1, B-2	Drive-thru services should be disallowed or severely restricted in districts that are supposed to promote pedestrian access and pedestrian-friendly environments, especially in downtown.
Y	1, 2, 3	Sec. 179 Planned Residential Developments: allowed in R-2, R-3, R-4	Good standards for mixing housing types and allowing more compact development, however, the application of PRD's are severely limited by the districts in which they are allowed and the minimum size (5 acres).
Y	2, 3	Sec. 181: Primary Residence with Accessory Apartment	These are fine regulations, but they would be much more effective if they were more widely allowed, as noted previous comments. <i>(The Affordable Housing Task Force has proposed language to change these standards and to allow accessory apartments more widely. 07/07 memo)</i>
Y	2, 5, 9	Sec. 195: Supplementary Regulations for Large Scale Retail	Good to have limits on retail size and require Community Impact Analysis, however the details of the CIA requirements and the types of mitigations required need to be spelled out more specifically.
Y	1, 7	Sec. 197. Standards for Multi-Family Uses in the B-1 District: "All new multifamily projects shall provide commercial uses in the lowest occupied level. . ."	This is a good requirement, however, it should be limited to certain street frontages in the B-1 District based on a downtown master plan. Not every portion of the downtown is appropriate for ground floor retail.
N	2, 9	Sec. 199. Definitions: Floor Area is defined as "enclosed areas on all floors. . .measured from the outside face of the exterior walls."	Measuring from outside wall penalizes developers who choose to use stone or other heavy/thick wall materials.

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
N	2, 3, 4, 5, 6,	Sec. 200 Schedule of Land Use Intensity Regulations	<p>These standards represent a major obstacle to Smart Growth development in Boone. With the exception of the B-1 standards, the requirements are overly complex, redundant, not context sensitive or context dependent, very suburban in orientation, and work against many of the environmental and Smart Growth goals that the community is trying to achieve.</p> <p>Consider maximum densities vs. minimum gross land area Reduce minimum lot widths Consider maximum heights and maximum pervious areas versus FAR Minimum number of stories (or FARs) may be appropriate in some areas, including downtown The ratios need to be simplified and made context-sensitive (e.g. rural, suburban, urban). Setbacks are too large in many cases for pedestrian-oriented development</p>
N	2, 3, 7,	Sec. 202. Gross Land Area, subsection [b]: "Two-family conversions, primary residences with an accessory apartment and duplexes shall be allowed only on lots having at least one and one half times the minimum gross land area. ."	This is a disincentive for accessory dwelling units, redevelopment, and greater housing density. The Smart Growth principle of compact building design needs to be balanced with the Town and neighborhoods' goal of minimizing college rentals in low-density, residential areas.
N/Y	6	Sec. 204. Minimum Recreation Space: Only required for multi-family and manufactured home parks.	Recreation space should be required for all residential developments including subdivisions of six or more single family houses. The amount of recreation space required should be based on the number of users versus size of lot (per bedroom is a useful factor) and location in the Town and proximity to existing public recreation space. Incentives or requirements for making recreation space publicly accessible should also be considered. In lieu fees could also be considered. Furthermore, additional standards for the design and minimum requirements for recreation space need to be included.
N	2, 4	Sec. 205. Building Setback Requirements	As outlined for Section 200 above, building setbacks can be made more context-sensitive (based on location in the Town) and reduced to allow more compact building lots. In appropriate contexts, detached homes and buildings can be as close as 6 feet apart before a fire-rated wall is required. <i>(Central Business District Analysis and Recommendations recommends allowing building setbacks to be at the back of sidewalk in the B-1 District.)</i>

Town of Boone Unified Development Ordinance			
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N	2, 5	Sec. 207. Building Height Limitations	Height limitations can be revised to allow for greater density and less separation between buildings in certain locations. For example, setbacks based on height could apply only to the portions building that exceed the allowed primary height. Also, measuring heights in stories versus a base height allows for variation in building configurations. <i>(Central Business District Analysis and Recommendations recommends raising the height allowances in the B-1 district.)</i>
Y	2, 3, 4	Sec. 210. Architecturally Integrated Subdivisions [AIS]	This section provides a useful approach to subdivision design by allowing the allowed density to determine the number of units versus the lot size. This approach can be more widely applied in Boone. <i>(Staff has suggested replacing AIS with cluster subdivisions. 1/05 memo)</i>
Y	2, 3, 4, 5, 6, 8	Sec. 211. Density on Lots Where Portion Dedicated to Town	This density allowance for open space dedication is a useful tool. It could be enhanced even further by providing a density bonus for developers who dedicate property.
ARTICLE XIII WATERSHED PROTECTION			
Y	6	Sec. 216 Purpose	Excellent purpose statement regarding protecting quality of water and “critical environmental areas and suitability of land for particular levels of development in accordance with the . . .Comprehensive Plan.”
Y/N	2, 4	Sec. 222. Watershed Areas Described	Density provisions could promote or require cluster subdivisions rather than allow them as exceptions. Even if density is limited to 0.5 du/a, clearing and grading for 2 acre lots and associated infrastructure may do more damage than clustered developments.
Y/N	4	Sec. 224. Buffer Areas Required	The Town may want to revisit the size of the vegetative buffer required on streams. 30 ft may not be sufficient to account for the intended water quality, riparian, and tree save goals of the Town. Consult with State and local environmental and water quality specialists for appropriate widths for High Country areas.
ARTICLE XIV STREETS AND SIDEWALKS			
N	8, 9	Sec. 231[c] Private Streets	Private streets should not be allowed or be severely restricted in Town. They become a maintenance liability in time, especially if Town is asked to take responsibility for street. Private streets also limit connectivity and result in greater congestion on major streets. <i>(Staff has suggested eliminating private streets in 1/05 memo.)</i>
Y	4, 9	Sec. 233 Access to Arterial Streets: “No direct driveway access may be provided from the lots within [a major subdivision]”	Limiting driveway access to arterial streets benefits pedestrians, cyclists, and motorists and creates safer and more attractive streets.
N	8, 9	Sec. 234[c] Transportation Impact Analysis	The language in this section is vague. More definitive standards for the TIA process and required mitigation (including mitigation for transit, pedestrian, and bicycle modes) should be spelled out in the UDO.

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
N	8, 9	Sec. 235 Coordination with Surrounding Streets	This section provides very vague connectivity requirements, which need to be made more objective and more definitive with measurable standards for when connections are required.
Y/N	4, 8	Sec. 237 Street Width, Sidewalk, and Drainage Requirements in Subdivisions	Town should provide definitive requirements regarding in what areas curb and gutter is required and where swales are allowed. Should be based on development and environmental context, street type, and density. Similar standards should apply to requirements for sidewalks, although the Town has made a good start with sidewalk requirements based on street type. Roll type curb & gutter should be discouraged. <i>(Staff recommended eliminating in 1/05 memo.)</i> Minimum street pavement widths are excellent by Smart Growth standards, although additional street types (including alleys) need to be specified for different conditions, including on-street parking. Sidewalk requirements for abutting streets is good, but minimum sidewalk widths should generally be 5 feet. <i>(Suggested by staff memo of 1/05.)</i> Also, standards for required planting strips between sidewalk and curb should be added, especially for collector streets and higher. Requirements for additional pedestrian access (Section 237[f]) is appropriate, but needs to be made more definitive and less subjective.
N	4, 8	Sec. 238 General Layout of Streets	Need to add language regarding roadways respecting existing terrain. Need to provide definitive standards for when cul-de-sacs can be allowed. Otherwise, they should be discouraged and an objective connectivity index explored. Minimum cul-de-sac length and block length need to be reduced. Furthermore, block length standards need to be based on context of development and density. Different standards for different areas of Town may be appropriate. Cul-de-sac minimum radius can be as little as 30 feet. Definitive standards for when cul-de-sac alternatives (hammerheads or "T"s) are allowed should be included.
Y/N	4, 8	Sec. 239 Street Intersections	Generally good provisions, however, the requirement that intersections be spaced 1000 feet on arterials is too high, in certain contexts, to promote pedestrian access and connectivity. The distance should be based on the development context and the specific nature of the street. In highly compact, pedestrian environments, intersections should be spaced 200-400 feet apart.
N	4, 8	Sec. 241. Public Streets and Private Roads in Subdivisions	Private streets in subdivisions should not be allowed or severely restricted in order to provide for sustainable long-term maintenance, consistency in streetscape and pedestrian accommodation, and maximize connectivity. <i>(Staff has recommended eliminating private streets in 1/05 memo.)</i>
N	4,8	Sec. 242 Road and Sidewalk Requirements in Unsubdivided Developments	see comments on Section 237
?	4, 8	Sec. 243 Attention to Handicapped in Streets and Sidewalk Construction	Construction details and requirements for curb ramps on the tangent sections of a curb radius (each side of the radius) should be included.

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
ARTICLE XV UTILITIES			
Y/N	2	Sec. 256 Lots Served by Governmentally Owned Water or Sewer Lines	The provisions in this section need to be supplemented by reference to policy or standards that limit the ultimate extent of water and sewer provision for the Town.
Y/N	4	Sec. 261 Lighting Requirements	The intent of this section supports providing lighting for pedestrian areas, however, it provides no definitive standards for such. Details on the level of illumination, and the type, design, and location of lighting for pedestrian areas should be provided.
Y/N	5, 6	Sec. 265 Underground Utilities	Requirements for undergrounding utilities will help improve the attractiveness of Boone’s major thoroughfares. However, this requirement should be selectively applied to key locations. For example, this requirement may be overly onerous for small lot developments and downtown locations.
ARTICLE XVI GRADING, SOIL EROSION AND SEDIMENT CONTROL			
Y/N	5, 6	Entire Article	This Article is well detailed with very definitive standards and provisions. The Town may want to consider different standards for different areas. For example, in areas that the Town wants to direct growth and development, such as downtown, different standards for grading and slopes may be appropriate.
ARTICLE XVII FLOODPLAINS, DRAINAGE, AND STORM WATER MANAGEMENT			
Y	6	Sec. 303 Permissible Uses Within the Floodway Zone and Flood Fringe Overlay Districts	Good prohibitions on uses with the Floodway Zone and Flood Fringe — limited to agricultural and open space uses, primarily.
Y/N	6, 7	Sec. 312 [Drainage and Storm Water Management] Plan Approval Required	Helpful requirement, generally, although the application may not be appropriate for redevelopment areas and other areas where the Town may want to direct intense growth (e.g. downtown). Regional stormwater plans may be appropriate for such areas where stormwater management on a site-by-site basis may not be realistic.
Y/N	6	Sec. 316 Drainage and Storm Water Management Design Standards	
N	6	Sec. 316[g] Requirement for curb and gutter in parking lots	In consistent with stormwater management goals, requirements of low impact development. Natural detention and retention systems for stormwater flows in parking lots should be prioritized over curb and gutter.
ARTICLE XVIII SIGNS			
Y	5	Sec. 329 Signs Permitted in the B-1 District	Good sign standards for this pedestrian-oriented district. Similar standards should be applied in other areas where mixed-use, pedestrian-oriented development is to be encouraged. <i>(Central Business District Analysis and Recommendations recommends allowing sidewalk signs and developing special sign standards for the core of the CBD.)</i>

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
Y/N	5	Sec. 330 and 331 Signs Permitted in the B-2 and B-3 Districts	Sign standards for these districts, while not overly permissive for linear, auto-oriented commercial corridors, are generally very suburban in nature and not conducive to Smart Growth-type development. The incentives for ground mounted signs is good. The community, if it decided to truly tame the visual clutter of the commercial corridors, could require that all signs be ground mounted.
ARTICLE XIX PARKING			
Y/N	2, 4, 8	Sec. 346 Number of Parking Spaces Required	Good: Requiring parking below national standards for peak demand (e.g. 3.3 spaces/1000 sq ft for retail; typically peak demand is estimated at 4 spaces/1000 sq ft). Also, differing parking requirements for different areas (e.g. B1 and proximity to transit in mixed-use districts) and different user groups (e.g. elderly) can reduce the amount of land devoted to parking. Bad: Requiring parking beyond what is typically expected (e.g. 10 spaces/1000 sq ft for restaurants; 6.6 spaces/1000 sq ft for colleges and universities). Parking maximums and general parking standards that are based on such factors as proximity to transit and neighborhood services should be considered. In general, the parking standards are overly suburban and are not appropriate in every context. Bicycle parking requirements are noticeably absent from this section and should be a basic requirement in Boone. Furthermore, requirements that encourage or require transportation demand management (TDM) as part of the parking provisions should be included.
Y	2, 4, 8	Sec. 352 Joint Use of Required Parking Spaces	Good, simple provisions to encourage shared use of existing parking.
ARTICLE XX LANDSCAPING			
Y	5, 6	Sec. 358 Purpose and Intent	Excellent purpose statement for Smart Growth goals.
N	2, 5, 6	Sec. 362 Table of Screening Requirements	Screening requirements are a very suburban solution applied too broadly in the Town. For example, like uses do not need to be screened. Also, uses in areas intended for mixed-use development do not need screening. (<i>Central Business District Analysis and Recommendations recommends creating landscaping requirements specific to the CBD.</i>) If the intention is to provide greenery in new development, requirements don't have to be limited to perimeter of property. Also, where planted areas are to be required, they should be required to be designed to serve a stormwater water retention function.
Y/N	5, 6	Sec. 366 Street Trees and Shrubs Along Dedicated Streets	Street yard requirements are also a very suburban application applied too broadly. Street trees and planting strips that separate roadway from sidewalk and provide shade would provide greater benefit to pedestrians and would be more appropriate for urban and mixed-use conditions and along major roadways.

Town of Boone Unified Development Ordinance			
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation
Y/N	5,6	Sec. 367 Vehicular Surface Area	Good requirements for parking lot landscaping. Consider requiring landscaped areas to be used for stormwater retention areas or giving credit for such.
Y/N	5, 6	Sec. 370 Preservation of Existing Trees and Vegetation	Generally good standards for tree protection, although, like many other standards they may not be appropriate in all development contexts throughout the Town. In certain areas where the Town wishes to encourage more intense development, less intense requirements and/or a more incentive-based approach to tree preservation may be in order.
ARTICLE XXII COMMERCIAL DEVELOPMENT APPEARANCE STANDARDS			
Y	5, 9	Entire Article	These are good standards written with easily measured standards and accompanying graphics, which make for predictable decisions for staff and the public.
Y	5	Sec. 393 Site Walls	Good standards for retaining walls
Y/N	5	Sec. 394 Exterior Walls	Good, easily administered standards. There is some danger that these standards may lead to cut-and-paste architecture, especially for smaller buildings. Also, in mixed-use and pedestrian-oriented contexts, some features such as windows and awnings need to be more heavily weighted than others. <i>(Central Business District Analysis and Recommendations recommends developing unique appearance standards for the CBD.)</i> The requirements in the Mixed-Use Districts for windows at the ground level provide excellent examples and should be standard.
Y/N	5	Sec. 395 Roofs	Consider requirement for minimum roof pitch of 8:12 for pitched roof buildings. 4:12 is a standard for metal/manufactured buildings.
Y	5	Sec. 396 Materials	Good, definitive requirements. Consider differentiating standards that are appropriate for industrial uses and those that are appropriate for office/retail uses. Allow cementitious siding (Hardiplank) and shakes. Add a more complete list that is not subject to staff review/approval.
Y	5	Sec. 397 Colors	Consider allowing other color palettes in districts where more vibrant colors would be appropriate.

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CBD ANALYSIS

Town of Boone Central Business District Analysis and Recommendations (2006)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
THE CENTRAL BUSINESS DISTRICT				
Y	1, 2, 5, 7	Extend the district to Hardin Street to the east and Poplar Grove Connector to the west		direct
Y	1, 2, 5, 7	Develop new central business core district		direct
Y	1, 2, 5, 7	Apply neighborhood business and/or institutional. . . zoning around CBD	Consider developing applying mixed-use base districts with standards that would be compatible with neighborhood edges.	direct
Y	4, 5	Develop a centrally located park downtown		indirect
PERMITTED USES				
Y	1, 7, 9	SUPs should not be required for office uses downtown		direct
Y/N	1, 7	Colleges and associated facilities should not be permitted in the CBD		direct
Y	1, 7, 9	Do not require a SUP for indoor recreation facilities		direct
Y	1, 2, 9	Amend Combination Uses to read "Mixed Uses" as used in current Smart Growth terminology		direct
Y	1, 2, 3, 4, 5, 7, 9	Do not require SUP for Multi-family apartments in the CBD if the lower level of building proposes a commercial use or develop mixed use districts.	Mixed-uses and residential uses downtown are crucial for Smart Growth. A downtown master plan should identify on a block frontage basis the locations where mixed use and single use residential should be allowed.	direct
Y	1, 2, 4, 5, 7	Encourage the conversion of existing multi-family residences to lower level office or retail through an incentive program		indirect
LAND USE INTENSITIES				
Y	2, 4, 5, 7	Amend UDO Section 205 [b] to tie setbacks to sidewalks. In cases where no sidewalks exist, the setback will be 10 feet measured from the edge of travel way.	A downtown master plan should identify the appropriate streetscape and setbacks for each block in the CBD. If possible, downtown setbacks should be 12-18 feet depending on the uses and streetscape features.	direct
Y	2, 4, 5, 7	Raise the height limitation in the CBD or eliminate the primary height component.	Appropriate heights for the CBD should be determined through a master plan process. In the meantime, also consider measuring heights by stories to allow variety in building design.	direct

CBD ANALYSIS

Town of Boone Central Business District Analysis and Recommendations (2006)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
SIGNS				
Y	5	Amend the UDO to allow sidewalk signs. . .in areas where sufficient sidewalk width exists.		direct
Y	4, 5	Develop a wayfinding program similar to that of Asheville for the downtown.		indirect
Y	5	Develop uniform sign standards for the central business core		direct
Y/N	5	Amend the UDO to allow freestanding signs in the CBD only on corner lots.	Limiting freestanding signs is appropriate, but could go much further. Freestanding signs are not appropriate in downtowns. They could be allowed as exceptions only or as existing non-conforming uses.	direct
PARKING				
Y	8	Install directional signs for public parking areas		indirect
Y	4, 8	Work with the University on developing parking requirements that are acceptable to the Town and University alike.	This effort needs to be part of larger downtown and University master planning efforts that would include parking management and transportation demand management recommendations/initiatives, including increasing parking fees, incentives for other modes, disallowing private parking for commercial uses, enhancing transit service, providing bicycle parking, etc., etc.. The problem of parking is a complex issue that has to be dealt with from the supply AND the demand side. It is often a problem of too much <i>underpriced</i> parking available that leads people to forgo other transportation options and overconsume parking spaces.	direct/ indirect
Y	5, 7, 8	Explore the possibility of a public parking facility in close proximity to the CBD		indirect
LANDSCAPING				
Y	2, 5, 6	Modify the existing text or develop new regulations in the UDO to address landscaping requirements for the CBD.	Landscaping requirements, like most other regulatory requirements, should be appropriate to the type of development.	direct

CBD ANALYSIS

Town of Boone Central Business District Analysis and Recommendations (2006)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	5, 6	Develop and adopt a downtown landscape/streetscape plan for the CBD	Coordinate with a downtown master plan and a stormwater master plan for the downtown area. Investigate opportunities to apply low-impact development stormwater practices into downtown landscaping.	indirect
Y	5	Encourage the use of planter boxes and hanging flower baskets for businesses that front a street but are unable to physically install planting material.	Also, encourage/incentivize green roofs and district landscaping opportunities versus landscaping for individual properties.	direct/ indirect
APPEARANCE STANDARDS				
Y	5	Develop unique appearance standards and amend the UDO for the central business core district	Appearance standards should be tailored to the various development contexts in the Town. Regulatory standards for the CBD can be determined through a master planning process.	direct
Y	5	Allow murals and public art in appropriate areas in the CBD		direct
Y	5	Develop uniform sign standards for the CBD core district		direct

WALK BOONE

WALK BOONE: A PROGRAM TO PROMOTE PEDESTRIAN SAFETY AND ACTIVITY

Prepared by the Town of Boone Alternative Transportation Subcommittee, September 2007

Walk Boone brings together the goals and objectives set forth in both the 1995 *Boone/Blowing Rock Alternative Transportation Plan* and the 2006 *Comprehensive Plan Update*. Walk Boone sets forth the following objectives:

Objectives:

1. To promote pedestrian activity in the local area.
2. To increase pedestrian activity in the local area.
3. To increase pedestrian safety in the local area.
4. To further enhance pedestrian infrastructure in the Town of Boone.
5. To decrease traffic congestion within the Town of Boone.
6. To recognize and promote healthier lifestyles.
7. To recognize the importance of walkable communities and the impact that it has on transportation, the environment, and the economy.
8. To open dialogue with other agencies regarding pedestrian activity in the area.
9. To recognize the importance of pedestrian facility planning.

Walk Boone Report (2007)					
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Recommendations for Implementation	Consistency with Town programs, policies, regulations, decisions?	Regulatory Applicability
Y	4, 8	1. Formulate... a Pedestrian Safety Action Plan for adoption			indirect
Y	4, 8	2. Perform an initial evaluation of Town-maintained pedestrian infrastructure.			indirect
Y	4, 8	3. Perform an annual inspection to keep pedestrian infrastructure in good order.			indirect
Y	4, 8	4. Discuss with NCDOT the amount and quality of NCDOT-maintained pedestrian infrastructure	Continue to lobby NCDOT for the pedestrian-friendly facilities for NCDOT projects, especially the 421 widening, including: low design speeds, pedestrian refuges, small curb radii, separation between roadway and sidewalks (preferably with street trees), bike lanes, sidewalks that are at least 6 feet wide on thoroughfares, pedestrian friendly intersections (including right turn islands, where feasible, pedestrian countdown signals), etc.		indirect

WALK BOONE

Walk Boone Report (2007)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y/N	4, 8	5. Continue enforcement of traffic violations	Enforcement is critical, but enforcement against pedestrians needs to be balanced with the fact that pedestrians are operating in a very pedestrian-hostile environment in Boone. Until more pedestrian-friendly crossings (pedestrian-friendly intersections and pedestrian refuge medians, etc.) are provided, pedestrians will continue to cross illegally because formal crossings are too far apart or because existing multi-lane intersections are often less predictable places to cross than mid-block locations. Enforcement of speeding and traffic calming needs to be a priority in all areas of the town, not just around schools, if walking is to be a priority.	indirect
Y	4, 8	6. Set aside funding and research additional funding options for the creation and distribution of maps.	With more time and more hands, this could eventually evolve into a program of individual trip planning with citizens who want to try walking, transit, or biking for local trips. These types of programs have been highly successful in other cities around the country and the globe.	indirect
Y	4, 8	7. Utilize media outlets on a regular basis for the promotion of Walk Boone	Include the web and other electronic communication, including e-mail and text messages, especially to students.	indirect
Y	4, 8	8. Follow up on recommendations for educational opportunities	In addition to good recommendations in report, see comments for item 6 above. Educational programs can also be effectively wrapped into Safe Routes to Schools programs.	direct
Y	4, 8	9. Update the Alternative Transportation Plan, including separate bicycle and pedestrian plans.	YES! The Plan was a great start, but is now 12 years old.	indirect
Y	4, 8	10. Funding the continued expansion of pedestrian infrastructure	The Town should compare at all of its current funding for transportation projects (including parking, resurfacing, maintenance, transit, etc.) against the population in the town that does not drive due to age, income, or physical disability (typically around 30%, although probably higher in a college town). Set a goal that funding for transit and active modes (i.e., walking, bicycling) begin to reflect that portion of the population, at least. The Town can also continue and expand requirements that new development participate in the costs and provisions of pedestrian infrastructure.	indirect/ direct
Y	4, 8	11. Participate in the healthy lifestyle opportunities such as FIT Community		indirect
Y	4, 8	12. Place information regarding Walk Boone on the Town website		indirect

ALTERNATIVE TRANSPORTATION PLAN

BOONE/BLOWING ROCK ALTERNATIVE TRANSPORTATION PLAN

Adopted by Boone Town Council November 20, 1995

The plan calls for some \$15 million worth of bikeways and walkways and mass transit improvements to be made in Boone and Blowing Rock and the area in between.

Boone/Blowing Rock Alternative Transportation Plan (1995)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	4, 8	Double the existing sidewalk system. Major arteries need significant sidewalk improvements. Residential areas, especially near schools, need sidewalks.	Require developers to participate in sidewalk construction along property frontage or through payment of fees to cover sidewalk construction costs in the right-of-way.	indirect
Y	4, 8, 5	Restrict left turns on Blowing Rock Road (US321) with median divider to improve safety for bicyclists.	A median and other "access management"/driveway restrictions would also make the corridor safer for motorists and pedestrians. And as noted in the plan, "would also improve this visually blighted strip development."	indirect
Y	4, 8	Bike lanes or behind-the-curb bike paths should be in every plan for new major arteries in Boone.	This recommendation should be highlighted in discussions with NCDOT on proposed roadway "improvement" projects. Proposed future cross-sections for major roads should be developed with bicycle facilities and future ROW for such facilities should be reserved as new development is proposed.	indirect/ direct
Y	4, 8	Town ordinances should restrict driveway access, especially where left turns can occur from five lane highways.	The current UDO provides good access management recommendation in Section 158 Corridor Districts.	direct
Y	4, 8	Bike/pedestrian paths and greenways: State Farm Road, Faculty Street, Winkler Creek Greenway		indirect
Y	4, 8	High priority 6.7 mile Boone Loop on several greenway segments	The Town continues to build and improve greenways in the Town	indirect/ direct
Y	8	Significant increase in frequency of service on high use existing routes, mainly from downtown by the university and out Blowing Rock Road.	AppalCart continues to increase ridership and frequency of routes. This service is one of the great success stories of Boone's Smart Growth efforts.	indirect
Y	8	Extension of transit service to areas on outskirts of Boone such as the Kellwood residential area		indirect

ALTERNATIVE TRANSPORTATION PLAN

Boone/Blowing Rock Alternative Transportation Plan (1995)				
Promote SG?	Smart Growth Principle	Policy/Regulation/Recommendation	Commentary: Implementation? Consistency with Town programs, policies, regulations, decisions? Recommendations for Implementation	Regulatory Applicability
Y	8	Provide transit service to park-n-ride locations well beyond Boone's city limits	AppalCART is investigating extending service to other parts of the County	indirect
Y	8	Provide bicycle carrying capacity on transit vehicles.	This has been accomplished by AppalCart.	indirect
Y	4, 8	Identified 12 pedestrian crosswalk locations	These should be funded and prioritized in conjunction with proposed medians for major roadways.	indirect

INTERVIEW QUESTIONS

BOONE SMART GROWTH AUDIT: QUESTIONS FOR STAKEHOLDER INTERVIEWS

GENERAL QUESTIONS

1. How would you define Smart Growth for Boone?
2. What are some of the advantages/accomplishments that Boone has in regard to implementing/achieving Smart Growth?
3. What are the most important growth and development issues facing Boone currently and over the next decade? What are development trends in area that will impact growth/development in Boone?
4. What are some communities or developments from around the state or the country that would be good models for Boone's growth?
5. Smart Growth Principles: which are the highest priority for Boone?
6. What are major regulatory or policy impediments to Smart Growth currently?
7. What are strengths of current UDO? Strengths regarding SG?
8. What changes need to be made to the UDO? (esp. re: SG)

SPECIFIC QUESTIONS FOR STAKEHOLDER GROUPS

Appalachian State University

1. What are current University growth/development plans that may impact Town?
2. What are projected off-campus housing needs? Projected parking needs?
3. What are some of the growth/development issues locally that are affecting the university?
4. What are some of the sustainability initiatives that the University is undertaking currently?
5. What are primary concerns of students regarding growth/development in Boone?
6. What are student desires regarding transportation, housing, recreation, environment, entertainment? Are they satisfied with

current options locally? What would be their priorities for local improvement regarding Smart Growth?

Town Staff

1. What are greatest opportunities (“low hanging fruit”) regarding implementing SG practices, regulations?
2. What are biggest obstacles, impediments?
3. What aspects of local regulations, planning/development practices should not change or are not likely to change?
4. What are some planning/approval process improvements that should be implemented?

Watauga County

1. What are current County policies, trends, regulations that may impact Smart Growth and development in Boone?
2. What types of development is occurring in the unincorporated areas?
3. What is the level of permit activity in Boone vs. unincorporated areas?
4. What are some of the Smart Growth initiatives that are being considered or undertaken at the county level?

Transportation

1. What are major transportation/infrastructure projects planned or on the horizon?
2. To what extent are transportation planning/infrastructure efforts following Comprehensive Plan and other local plans (Alternative Transportation Plan, etc.)?
3. What is the preferred road/ROW design? What context-sensitive and multi-modal design criteria being utilized for roadway/intersection projects?

Environment & Land Use Advocacy

1. What are major environmental issues facing the Town?
2. What are major environmental initiatives currently underway,

INTERVIEW QUESTIONS

- planned, or needed in the Town or region?
3. What level of implementation of the Clean Water Act Phase II has been implemented to date?

Neighborhood Residents

1. What are key growth/development issues facing existing neighborhoods, existing businesses in Boone?
2. What are the preferred types of infill/redevelopment in Boone? What are good and bad examples locally or from other places?
3. What are the current levels of neighborhood organization and types of participation?
4. What kinds of growth/development are neighborhoods organizing around?

Utilities

1. What are current sewer/water extension policies?
2. What are trends re: demand for new service?
3. Capacity information?
4. Fee schedule?
5. Are current policies/practices consistent with Comprehensive Plan policies?

Development Community

1. What are the strengths of the current UDO and planning/approval process in Boone? (especially in regards to Smart Growth)
2. What needs to be changed?
3. What are trends in development from a market point of view? What types of housing are people asking for? What kinds of amenities?
4. What are good examples of the types of development (from other places) that would be appropriate for Boone?
5. What is the level of acceptance for higher density and mixed-use housing options in the rental and for-sale markets?
6. What is the level of acceptance/demand for green/sustainable building and site design practices?

Business Owners

1. What are growth and development issues/trends that are affecting local businesses, both positively and negatively?
2. What kinds of policy, regulatory, or capital changes could the Town make in regards to Smart Growth that would help business owners?

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INTERVIEW COMMENTS

COMPILED COMMENTS FROM STAKEHOLDER INTERVIEWS – SEPTEMBER 11TH AND 12TH, 2007; ORGANIZED BY SMART GROWTH PRINCIPLES

1. MIX LAND USES

Environmental Group

- Need to encourage mixed-use, residential/commercial development

Utilities

- New water and sewer will help with mixed-use redevelopment along Howard Street

Development Community

- Mixed-use requirements are not working in regards to commercial. It's too excessive to do 25% of commercial.
- Mixed-use would benefit traffic problems.
- Need to allow mixed-use by right

Neighborhood Groups

- Need more mixed use

2. TAKE ADVANTAGE OF COMPACT BUILDING DESIGN

Environmental Group

- Housing should be encouraged that is mass-transit and pedestrian friendly
- Reduce setback and minimum lot size/width required

Business Owners

- Land intensity ratios in the UDO are hindrance to Smart Growth because of height restrictions, 6-7 stories would be ideal

Development Community

- Setbacks are too excessive, eats up a lot of the developable area. Especially with commercial properties- went from 4 ft. to 10 ft.
- Cluster homes, condos would be acceptable here and think people would be really interested in them.
- Increased density will be the only way to make this more sustainable but need to sell idea - one of the biggest obstacles
- Interest in density bonuses
- Need to make downtown more vibrant and build up but council scared of tweaking heights

Neighborhood Groups

- Need infill, go vertical
- Need more duplexes, not apartments

Appalachian State

- ASU would like to look into building higher, but need to rezone to university zoning to not be subject to setbacks or height requirements.

3. CREATE A RANGE OF HOUSING OPPORTUNITIES AND CHOICES

Environmental Group

- Need to ensure that Boone does not become gentrified and exclusive. Affordable housing is key here, but this cannot be used to justify apartment "slums" that are cheap but compromise other standards of development.
- Provisions for affordable housing, doctors and faculty can't afford housing in Boone. Especially for young families.
- Need to tax 2nd homes higher
- 50% of tracts, 45% of land is owned by people outside the area

INTERVIEW COMMENTS

Business Owners

- Area of issue is rent rates, purchasing real estate- affordability of retail and office space but also affordable housing for these people who work here in Boone.
- Housing affordability is also affecting traffic because people have to drive from other areas here to work. It's also affecting businesses because no one wants to come downtown and sit in traffic.

Planning Staff

- 2nd home market pressures on affordability
- Need increased supply of workforce housing
- Interest in accessory housing- requirements in R1A are too difficult
- Boone mixed use apartment, townhouses are \$595,000, a lot of parents of affluent college students buy children a place, hold onto it for 4 years and then sell it for a profit.
- Affordability affects the students, too. In some cases its cheaper for students to get a bunch a kids to live in a single-family home.
- ASU having difficulty recruiting professors because of affordable housing issue
- Students are more diverse these days- older students, some with families

Utilities

- Incentive for supplying water to affordable housing projects- draft text amendments
- About 75% of homes renter occupied- a little over 4000 homes, 3000 renter occupied. Median home value is around \$270,000 in Watauga/Avery County.

Watauga County

- Huge growth in 2nd homes, a lot of upscale, gated communities, which is driving up the price of homes around the

county and the ETJ.

Development Community

- Affordable housing impacts on single-family homes- high costs of detention/retention, high cost of development in high country, other requirements at code inspection level beyond state requirements.
- Need to get creative- such as an environmentally friendly dorm that a private developer would build where students vowed to not to bring a car and you built it with no parking, no setbacks, etc. Then it's not taking that off the tax roll.

Neighborhood Groups

- Need more affordable housing, duplexes- not more apartments. Faculty cannot find places to live.
- Need to consider senior housing with aging population in Boone, a lot of retirees
- Certain neighborhoods are transitioning from retirees to students
- Accessory dwellings okay with conditions

4 CREATE WALKABLE COMMUNITIES

Environmental Group

- Need to encourage more walkable community, especially with traffic and parking problems

Appalachian State

- Jaywalking on River Street a big issue at ASU; tried to enforce before but didn't work. ASU needs solutions besides pedestrian bridges because they are controversial.

Business Owners/Development Community

- Town also needs improved streetscape (lighting, landscaping, etc.). Pedestrian friendliness and sidewalks which connect to

INTERVIEW COMMENTS

- other parts of town.
- Create a pedestrian friendly downtown
- Neighborhood Group
- Very difficult to walk across the street- In some cases if you want to walk or catch the AppalCART you need to cross streets which cause you to put life in your own hands.
- Sidewalks that are against street with no buffer aren't "pedestrian friendly" either.

5. FOSTER DISTINCTIVE, ATTRACTIVE COMMUNITIES WITH A STRONG SENSE OF PLACE

Business Owners

- Improved area landscape plantings, green space, public lighting, site furnishings
- Implement a 1% for Public Art/Greenspace Ordinance: an allocation of 1% of project construction budgets to incorporate art/greenscape into the project
- Need stricter design standards for development, downtown master plan/design guidelines.

Planning Staff

- Major impediment to growth currently is lack of an overriding master plan for growth.
- Need holistic approach to building appearance standards
- University growth and larger student body- negative effect on tax base.
- Growth of Boone as a commercial hub of High Country and associated traffic.
- Development/creation of jobs that pay living wages

Environmental Group

- Need to ensure that large commercial parking lots have adequate "beauty" provisions such as trees and other landscaping.

Neighborhood Groups

- Neighborhoods constantly besieged, feel that they are constantly trying to preserve neighborhoods.
- Neighborhood preservation is primary concern, especially neighborhoods in close proximity to campus. Need to minimize student rentals.
- University hasn't done enough to support neighborhood integrity.
- Lighting requirements are bad- light pollution
- Issues with housing not being kept up to code
- Hardware supply and other local convenience shopping is gone in downtown Boone due to tourist shops; growth of tourism trade an issue.
- Need to enforce minimum housing codes

Appalachian State

- Need better architectural standards

6. PRESERVE OPEN SPACE, FARMLAND, NATURAL BEAUTY, AND CRITICAL ENVIRONMENTAL AREAS

Environmental Group

- Need a dependable source of water, but not one that is harmful of the environment
- Must ensure that any treated water we are putting back into nature is not harmful to people and the environment.
- Areas along streams need to be protected from degradation, especially from sedimentation and stormwater runoff. Adequate vegetative buffers are key.
- Howard Street- can't seem to ensure that BMP's are included for Stormwater runoff. Would like to see the Town take on Stormwater management practices and have businesses up and down the creek pledge to uphold them. 16 different property owners on creek so would have to happen over time.
- Looking to Boone to be a model of the steep slope ordinance.

INTERVIEW COMMENTS

- Need greater protection of farmland. 50% of the land here was owned by people that don't live in Boone (study done by Mountainkeepers in 2000).
- Water quality a huge issue, also quantity and access (Watauga County is headwater of 4 rivers- New, Watauga, Linville and Catawba).
- Would like to see more of Howards Knob protected

Planning Staff

- Revamp tree conservation to allow issuance of speculative grading/site prep work
- Floodplain buildings, impervious areas causing runoff into commercial areas which is causing increased flooding, a lot of the flatter slopes have been built upon so greater potential for runoff and erosion.
- Preservation of canopy more, on an individual basis in the past. Regulating tree canopy in residential areas. Maintaining the health of the canopies as well. A lot of trees in commercial properties, problems with historic trees.
- The stormwater regulations no longer contain a water quality component. Guidance language tracking NPDES Phase II should be re-established.

Utilities

- A lot of developers want to speculate on ASU growth; want to build on slopes in secondary pressure zones (> 3400')
- Possibly of implementing a fee for Stormwater management, need to determine whether university would be involved. Big issue because don't know if can support program without ASU's involvement.
- Water quality is becoming more of a priority to the Town Council, retained a consultant to look at Stormwater quality issue. Funds to look at NPDES Phase II, hiring staff, implementing water quality issues in town, UDO, someone to follow up if systems are properly working and maintained.

Watauga County

- Air quality from traffic and being downwind from the coal burning facilities a concern
- Also acid rain on highest peaks
- Need to have geologic survey to determine how much water we have and compare to growth, especially with droughts. Our water runs downhill and we don't retain it.
- Another issue is Watauga River has streams feeding into it down 105 and gravel plant lets go of their sludge whenever it rains and it's somewhere between a light green/milky color.
- Farmers being able to hold onto land with raising prices an issue

7. STRENGTHEN AND DIRECT DEVELOPMENT TOWARD EXISTING COMMUNITIES

Planning Staff

- One of most important issues is adequate infrastructure, again infrastructure but with growth also demand for new, especially water system, long term water solutions in \$40-50 million range.
- A lot of student housing because of growth of the university. Creates a lot of demand on the town's infrastructure.
- Redevelopment should be especially encouraged and facilitated. The current UDO contains many regulatory impediments which often result in abandoned projects (no improvements or reuse).

Utilities

- Acquiring new water is #1 issue, 2009-2010 is projected built out
- Redevelopment projects may actually use less water but at the same time some lines might be undersized for some redevelopment.
- Possibility of selling water to Blowing Rock so there would be a water line along 321 which would spur development.

INTERVIEW COMMENTS

- Also will need an expansion of the wastewater treatment plant at some point down the road- 17 more years or so, 2018/2020.

Business Owners

- Lack of specific master planning for downtown including overall design guidelines- Implementation Plans
- Need revised parking study
- Need to revise MSD
- Need to conduct a retail inventory to understand that the market can/not hold and the necessary business additions to fill the need with incentives for necessary businesses, encourage mixed use developments
- Restore public historic building, for example: post office
- Need to assist the hospitality houses in the MSD to relocate to an up to date, larger facility that is outside the downtown.

8. PROVIDE A VARIETY OF TRANSPORTATION OPTIONS

Business Owners

- Improve bike paths from other areas in Boone to the downtown with convenient, secure bike racks
- ASU needs to regulate freshmen on campus who have cars
- Traffic- roads aren't keeping up with the growth
- Minimum parking requirements downtown too much, need to be context sensitive
- Incentive for public transportation has to grow
- Need taxpayer funded parking deck downtown
- ASU needs to regulate freshmen who have cars on campus

Environmental Group

- Greenway system needs to be expanded to provide more transportation functions, i.e.- segments which allow students and others to get to places they need to be as well as providing a healthy quality of life factor.
- Need to promote AppalCART more

- Aging population is definitely an issue. Transit expanding to these areas so people may get to services.
- Nuisance to shop in Boone because of traffic
- Transportation is an environmental issue- tourism to Boone and thru Boone

Planning Staff

- Need to require bicycle parking and more transit shelters
- Need to follow through on the greenway system

Transportation

- Improvements along 321 will most likely increase traffic
- AppalCART is planning new facility on 8 acre tract and hopes to start construction in the next 6-9 months. Right now cannot get any larger but thereafter they plan to expand more with increased fleet size and hopefully shorter headways and more routes. They are overcrowding. Wal-Mart is basically a park and ride lot right now. Boone Mall gets a lot of the same.
- Bear Trail was one-wayed because of safety issues. It's very narrow at one point. Speed limit was lowered to 20 mph in neighborhoods, but didn't go over very well.
- Would like to complete sidewalks along both sides of 105 out to city limits. Then Poplar Road, also Deerfield Road
- Town receives approximately \$30,000-\$40,000 of Powell Bill funds but use more than that. \$100,000/year would be a nice fund.
- A lot of private streets being created and then being turned over to the Town down the road and they are inadequate.
- Not enough base being put under roads, also binder being put in before top coat, especially with the weather and traffic here the standards aren't good enough.
- Need to look at satellite parking at edge of town
- AppalCART looking at M-F routes for County
- AppalCART went fare free in July 2005, Town agreed to pay costs of non-students. Ridership went up 21% that year and

INTERVIEW COMMENTS

another 13% this past year. Last year- 900,000 passenger trips. Early months of 2007 are up, might break a million.

Neighborhood Groups

- Boone is approaching gridlock downtown, 321, 421
- Bear Trail been made a one way street which is a tragedy. Would like to see it widened and reopened to a 2 way traffic street- can't cut back to town.
- Tourism is booming, tourist traffic. Desire to live in Boone is being taxed.
- Oak Street was made one way and narrowed. Delivery trucks are parking over bike lanes, which are trying to foster pedestrian, bike transportation.
- NYC has "do not block the box" where people are cramming themselves into intersections to make lights so police will ticket if you are in intersection and light turns red.

9. MAKE DEVELOPMENT DECISIONS PREDICTABLE, FAIR, AND COST EFFECTIVE

Planning Staff

- Need to educate elected officials and public on true Smart Growth- it's not pretty buildings or deflecting growth. The "buy-in" to density.
- Need to allow monthly public hearings- quarterly public hearings delay projects too long.
- Need to allow subdivision by right with flexible design allowed
- Broader participation on town boards and committees- Town Council is overly represented with 2 members on each- too involved.
- UDO is choppy and difficult to explain or follow. Many UDO standards are fairly subjective and hard for developers/residents to determine its scope or effect on proposals (i.e. - trees).
- Permitted use table cumbersome and too many SUP's required
- Over-parked, downtown regulations don't fit/work

- BOA is a real deterrent for development, most would rather rezone than go before Board

Business Owners

- Water impact fee (\$8000) killing small businesses, some feel that council uses water issue to decide what gets done.
- Appearance Commission recommendations don't have any teeth
- BOA, fear of going in front of them
- Need cooperation of Town officials
- UDO not very user-friendly

Development Community

- Largest obstacle is lack of predictability, cannot find a land planner in town that will tell you what you can do with your property, such as boards turning down plans that adhere to the regulations.
- If neighbors come to complain, project is dead
- Need reasonable rule, regulations
- Hard to do by-right development
- Need an atmosphere of encouragement, not disablement, or even in the process of construction would be helpful to have more guidance.
- Inspection process- can get approvals and then there are changes. They come in and say that you are doing it wrong and then require a lot of changes which add up very quickly.
- Feel like the Town's definition of Smart Growth is not to grow at all.
- Also doing site plans if you have just bought a lot speculatively is too excessive.
- Parking requirements are too excessive, for example a 2 bedroom unit- 3 parking spaces (1 for each bedroom + 1)
- Tree protection ordinance is too excessive. Only based on size of tree- doesn't include species or age of tree.
- Format of UDO needs to be more user-friendly, extremely hard to read through and understand things that are required.

INTERVIEW COMMENTS

- Any subdivision is considered large- if you have 2 lots then it's a large subdivision if you need water/sewer.
- Need 30 day preliminary inspections. When go for CO [certificate of occupancy], they tell you that you need 30 day inspection. Hard when it's the most critical time and then there's a delay such as that.
- Increased review time to 10 days. No time limit on turn around for revised plans.
- Impediment is BOA, would rather go through rezoning process with Planning Board/Town Council
- No property is changing hands because of the unpredictability of the development process
- Need to look at make-up of BOA, need time exception for members
- Shouldn't have to be represented by attorney at BOA if not representing self (property owner)
- Hard to even look at comps in the area because nothing is changing hands. Atmosphere is such that it's too political and the restrictions are so severe people just leave.

10. ENCOURAGE COMMUNITY AND STAKEHOLDER COLLABORATION IN DEVELOPMENT DECISIONS

Planning Staff

- Public dialogue on development proposals occurs too late- after project design.

Business Owners

- More cooperation and coordination with the Town (Council and Town Manager)

Environmental Group

- Relationship between Boone & ASU:
 - Stormwater management on campus
 - Friction around new education facility

-Pressure on town's traffic and parking

Utilities

- Fear of floodplain rising here as development happens in the County because it all drains here, i.e.- Blowing Rock. Increased need for Regional Planning collaboration.

Watauga County

- Really aren't adequate roadways, hard time getting attention from NCDOT. Hwy 94 about to be resurfaced, 421, 321
- Talks about a regional water system. Ashe County was not interested.

Development Community

- ETJ needs to be better represented (i.e.- BOA, council)

Neighborhood Groups

- Real fault line between people who have been here their entire lives and the new people

OTHER COMMENTS

Business Owners

- Town needs liquor by the drink- beer and wine only in restaurants which people feel hurts businesses. Most counties surrounding the area have it.
- Downtown businesses need to stay open longer
- Need business incentives
- A lot of business owners don't get to vote on local issues.
- A lot of people don't want taxes to rise so you are fighting that fear. People who have been here a long time don't want change. But they have to realize it's going to happen.

Environmental Group

- Boone should consider leading the way in choice of official

INTERVIEW COMMENTS

vehicles by choosing hybrids and other environmentally friendly responsible transportation.

Planning Staff

- Need to develop a land use plan and corridor plans
- State owned land, growth of the university and the impact it's going to have on the Town. ASU's continued acquisition of land and the Town's inability to meet demands for growth in terms of housing, etc.

Watauga County

- County has subdivision regulations that are over 30 years old now.
- Us vs. them mentality- a lot of resistant to those who have been here a really long time. More mentality against regulations out in unincorporated area, vs. in town where there is more willingness to regulate.

Transportation Group

- Bicycle Group at ASU, new initiative to rent bikes to students that don't own one.

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