A Smart Growth Audit for Charlotte-Mecklenburg County

Submitted to:

The Charlotte-Mecklenburg Planning Commission

Submitted by:

LDR International, Inc.

in association with

Freilich, Leitner & Carlisle

and with the assistance of

Dr. Robert Cervero, UC Berkeley
Dr. David Godschalk, UNC Chapel Hill
Dr. Arthur Nelson, Georgia Tech
Douglas Porter, AICP, The Growth Management Institute

September 2, 1999

Table of Contents

I. Introduction

After two decades of spectacular growth, Charlotte-Mecklenburg senses a need for greater control over its future.

A driving force behind this concern is increased awareness that growth is never problem free. Increased traffic congestion may eventually impair its economic prosperity and create a marked competitive disadvantage versus neighboring jurisdictions. Expansion of population and jobs to the outer reaches of Charlotte-Mecklenburg and beyond threatens to leave behind a struggling, less vibrant inner city. The impacts of development on the natural environment -- changes in floodplains, threats to water supplies, possible return to air-pollution noncompliance-- are increasingly evident. Learning from metropolitan areas that waited too long, Charlotte-Mecklenburg is determined to anticipate and resolve such threats to its well being. It remains committed to working out its own solutions to its own problems.

A public discourse on Smart Growth is the latest step in the evolution of these solutions. This Smart Growth review recognizes how in recent years key planning achievements and debates have established a vision of continued prosperity, rational growth, social equity and a widely-shared, high-quality of life for all of Charlotte-Mecklenburg. Among the most important of these planning achievements are:

- *The 2025 Land Use-Transit Plan that tackles the issue of how and where to direct growth to make the adopted Centers and Corridors vision a reality.*

- *The 2015 Comprehensive Plan that stresses the need for Charlotte-Mecklenburg to fully urbanize but not at the expense of its older established neighborhoods and not in ways that will eventually drive growth into neighboring jurisdictions.*
- *A very proactive system of district and neighborhood planning, citizen involvement, and a consensus-building planning culture.*

- *A commitment to stabilizing and reviving the many neighborhoods of the City Within A City (CWAC), a 60-square mile area generally inside Route 4.*

- *The beginnings of a 21st century downtown for Charlotte-Mecklenburg with a healthy job base, a substantial degree of residential growth and a broad base of entertainment, shopping and special events that make this downtown a center of attraction for all of Charlotte-Mecklenburg.*

Smart Growth is only one more strategy for growth to create long term value that Charlotte-Mecklenburg can use to specify its desired future and the best ways to get there. A Smart Growth strategy will nurture the positives of current trends and neutralize the negatives. Smart Growth is a means to carry out the intentions of the 2015 Plan and its offshoots without faltering due to congestion, housing imbalances or lack of accessibility to jobs. For example, Smart Growth initiatives can manage the impacts of the proposed I-485 Outer Beltway. Smart Growth measures will guarantee that this long planned road will not drain the vitality of the more central areas of Charlotte-Mecklenburg while degrading quality of life in the suburban ring that I-485 will serve.

This report is a first step in articulating and institutionalizing a Smart Growth agenda for Charlotte-Mecklenburg. It centers on a review of current policies, how these policies

are coordinated, and where they contradict each other or where planning gaps need filling. Its primary purpose is to give all those concerned about the future of Charlotte-Mecklenburg an umbrella for a comprehensive planning vision.

The team initiating this Smart Growth exercise is familiar with many aspects of Charlotte-Mecklenburg's recent development but is also able to look at Charlotte-Mecklenburg from an outsider's perspective. As is clear in the text, the team brings to this assessment of the current situation its own outlooks and planning perspectives gained from experience in a variety of communities. It presents its comments in an open way. It does not purport to offer the only possible solutions to current problems. Because the team has not been directly involved in the implementation of the policies it investigated (e.g., administration of zoning regulations), many of its evaluations and interpretations are open to debate. Nevertheless, the team is confident that the key recommendations with which it ends this review can be a base upon which to build a consensus about a Smart Growth future for Charlotte-Mecklenburg.

To conduct this audit and focus its investigation, the team developed a set of principles that represent the main points of Smart Growth. These principles constitute an ideal Smart Growth system. It is highly unlikely that they could ever all be applied within a single community. The stage of growth in a community, the degree to which the local economy is expanding and diversifying (or not), the number and size of the various local jurisdictions, the scope of powers that a state delegates to its local jurisdictions, the degree to which interjurisdictional cooperation is already in place, the political realities and civic culture, and the quality of governance and administration will all bear directly on Smart Growth possibilities. This is as true in Charlotte-Mecklenburg as it would be anywhere else.

Based on this Smart Growth audit, the background interviews and other comments received as part of this process, the team offered six recommendations as the most important positive steps that Charlotte-Mecklenburg should take immediately. These recommendations focus primarily on creating a deeper understanding of current planning trends and on removing obstacles to the better implementation of established policies such as the 2025 Land Use-Transit Plan.

These recommendations are:

- *Streamline and Improve Development Codes and the Review Processes.*
- *Establish Proactive Policies and Powers to Implement the Centers and Corridors Vision.*
- *Plan Ahead for the Infrastructure and Service Needs of the Future.*
- *Establish a More Thorough Planning Database and Development Tracking System.*
- *Conduct a Fiscal Impact Analysis of the Outcome of Current Plans and Policies.*
- *Develop a Unified Open Space, Environmental and Parks Strategy.*

The bulk of this audit lays out the reasons for these recommendations and how they can lead to further progress for Smart Growth planning in Charlotte-Mecklenburg.

II. CHARLOTTE-MECKLENBURG 2040

The reviews that form the core of this Smart Growth exercise often focused on the details of a specific policy or plan. The complexity of the issues addressed demand such due diligence. Yet the overriding purpose of a Smart Growth initiative is how to best fulfill a vision of the future that expresses the basic hopes and desires of the Charlotte-Mecklenburg community. The Centers and Corridors concept and the 2015 Plan are the starting points for such a vision. The following depicts what the long-term results of a Smart Growth implementation of these plans might be.

Charlotte-Mecklenburg in 2040 Looks Forward to Another Decade of Prosperity and Civic Pride.

Although the combined population of the surrounding counties is now somewhat larger, this growth has not come at the expense of Charlotte Mecklenburg's well being. The Downtown remains the nation's second largest financial center, but has diversified into a more balanced economy through the continued influx of companies establishing their regional or national corporate headquarters here. The Downtown has also retained its role as the primary service center for the entire 15-county region and beyond.

One reason for the continued preeminence of the Downtown has been the expansion of the old five corridor transit system into the adjacent jurisdictions and the new high speed rail connections to Raleigh, Atlanta and beyond. Although road congestion leveled off about 2030, traffic problems remain citizens' number one complaint. Transit, however, enables Downtown businesses to continue to tap into the full range of the area's local labor force. Transit also has allowed these businesses to locate many of their backoffice operations in the outer areas of Charlotte-Mecklenburg and adjacent jurisdictions where much of the labor pool for this work lives. The creation of the southeast United States' most advanced fiber-optic communications network also sustains the Downtown as the new premier urban center of the Southeast.

Charlotte-Mecklenburg continues to benefit from the distribution throughout the county of other significant economic hubs and community centers. The Charlotte Douglass International Airport has become a major regional multi-modal transport center. Aided by transit and the redevelopment of the original University Research Park, the area around the University of North Carolina Charlotte (UNCC) has evolved from its earlier suburban-style office park environment into a much denser edge city. The SouthPark complex of offices, retail, entertainment and residential is second only to the Downtown as a regionally significant mixed-use center. Other centers such as Eastland, Beatties Ford and Ballantyne also have strengthened Charlotte-Mecklenburg's ability to retain its role as the undisputed center of the region.

Also noteworthy is how each of the six independent towns -- Davidson, Cornelius, Huntersville, Mint Hill, Matthews and Pineville – have become fully integrated into the urban fabric while still retaining their individual identity. Much of this transformation has been spurred by the strategic location of five of the towns on the main transit corridors.

The gradual transformation of the old suburban ring created in the 1980s and 1990s is nearing completion. Using the I-485 belt as a defining boundary, Charlotte-Mecklenburg has successfully promoted an incremental increase in the population inside the beltway through

infill and replacement of older low density housing by small-lot single-family housing. The new average densities of this original suburban ring (4 to 6 dwelling units/acre) now resemble those of Charlotte's original streetcar neighborhoods. It was the successful renaissance of these older areas between 1990 and 2010 that established the market for small lot housing among the growing ranks of professionals employed in the Downtown and satellite mixed use centers such as the South End, SouthPark, Plaza-Central and UNCC.

The older streetcar neighborhoods themselves are thriving. There was some concern about these areas and other mid 20th century neighborhoods in the early 2020s with the aging of the original urban revivalists who sparked their renewal in the 1990s and after. However, a second wave of revitalization is now nearly complete. These neighborhoods consequently succeeded in attracting a new cohort of young couples as well as a good percentage of the retirees from the Northeast and Midwest who had discovered Charlotte as an urbane and more sophisticated alternative to the usual Sunbelt retirement community.

Much credit for this successful renewal and stabilization goes to the City's aggressive quality maintenance and assistance initiatives. The partial undergrounding in 2015 of the aged I-277 loop to heal the torn urban fabric between Downtown and nearby neighborhoods was also an important symbol of Charlotte-Mecklenburg's continued commitment to the quality of its inner city environments.

While the Downtown remains Charlotte-Mecklenburg's premier economic environment, the multi-modal transportation centers near the airport, along I-77 in Southwest Mecklenburg and in the I-85-North Graham corridor continue in their quiet way to thrive. Charlotte-Mecklenburg's excellent transportation links to the entire Southeast United States is an essential reason for the return of many manufacturing and light industrial enterprises, especially those involved in the technology and medical supply fields. The long-desired railroad system revival that finally began in earnest in 2012 was a key factor in attracting such new businesses despite the area's much publicized road issues.

Although the more visible Downtown towers and satellite centers are the signature image of Charlotte-Mecklenburg, the transportation and manufacturing centers underpin much of the local economy. Indeed, these businesses employ a surprisingly high proportion of Charlotte-Mecklenburg residents. As with Downtown, the prosperity of these distribution and manufacturing centers benefits from access to a broad, well-trained local labor force.

By now most of Charlotte-Mecklenburg outside the I-485 beltway has built out. In the past two decades many of the original interchange developments of suburban strip centers, office parks and apartments have evolved into higher density mixed use environments. Similar to the mixed-use centers that the new rail service supports in Huntersville and Cornelius, several notable satellite centers have taken root where the transit lines and the beltway meet. The groundwork for this evolution was the Comprehensive Zoning of 2008 that created a special Beltway Overlay zone with density incentives for bona fide mixed use similar to the Transit District Zoning Plan of 2001.

While less so than inside the beltway, more compact, walkable planned communities are superseding much of the older suburban tract housing thrown up to meet the housing boom of the turn of the century. As these new neighborhoods emerge, the required open space created by resubdivision is added to the regional network of parks and greenways.

Of particular pride has been the restoration of miles of stream valley buffer areas. This has occurred largely through the gradual buyout of obsolete development in the floodplains and the trading of stream valley open space contributions for higher densities in these new

developments. By establishing such incentives, the County was able to target its available money for acquiring new open space in the older, more urbanized neighborhoods of Charlotte-Mecklenburg. The most visible accomplishment of this work has been the expansion of the original "Central Park" and the transformation into urban parkways of North Tryon, Monroe, South Boulevard, Wilkinson and West Trade as well as key sections above the buried I-277 loop. These changes have given Charlotte an inner city green network comparable to those of Boston or Cleveland.

Although seldom given their full due, the planning decisions made between 2001 and 2012 laid the groundwork for this general well being. Unlike some cities, Charlotte was able to improve and stabilize its inner city property base. This achievement and the generally rising property values throughout Charlotte-Mecklenburg have created much of the revenue base to sustain and expand the high quality of schools, recreation, cultural programs as well as basic services that continue to attract new businesses and residents.

Because of the stability of its basic revenue sources, the Capital Improvement Master Plan process has proven very effective in coordinating implementation with planning goals, even though its extended 10, 12 and 15-year needs and delivery schedules had originally generated great skepticism.

Although the controversial regional government movement won elective offices between 2007 and 2015, it never gained sufficient support to carry out its desire to merge the surrounding counties with Charlotte-Mecklenburg. Nevertheless, this movement did prod both state governments to pass a series of planning reform laws that enhanced the power of local jurisdictions to act together. The decision of these jurisdictions earlier in the century to establish extensive regional water and sewer, transit and parks and environmental protection authorities were legitimate responses to this regional sensibility and are underappreciated sources of much of the quality of life our communities enjoy today.

Although this scenario is an idealized picture of conditions 40 years from now, it is not farfetched. The main ideas of what Charlotte-Mecklenburg could be in 2040 stem from the full implementation of many current policies and goals. Many current trends such as the South End revival have been extrapolated to other areas to create a solidly prosperous and urbane inner city. The regional achievements are those beginning to emerge from such forums as the Voices and Choices initiative. In this scenario, the economic development currents that have fueled the past two decades of rapid growth are assumed to remain strong. Any slowdowns are assumed to be relatively brief with recovery bringing even stronger forward momentum.

Implicit in this scenario is the institution of some form of Smart Growth. Smart Growth has removed roadblocks to implementing more effectively the goals of such key policy documents as the 2025 Land Use-Transit Plan. Smart Growth has tempered the imbalances in housing opportunities that are an increasing worry today. Smart Growth has also brought into equilibrium such planning basics as a desirable jobs/housing balance, sufficient land supply for specific land use needs (e.g., multifamily housing) and better control over the environmental impacts of land conversion. Smart Growth has done this without abrupt interventions such as development moratoria and while streamlining the local development codes and review process.

The Smart Growth program to accomplish all this is not a ready-made system that was imported from elsewhere. Some of its basic principles and tactics are already well established. Others will need to be added or stepped up. This Smart Growth audit is one means to sort out what these changes or additions to existing planning practices should be and how all the different Smart Growth planning principles and actions can better work together.

III. Setting Up for a Smart Growth Audit

Audit. verb: tr/in., to examine and check, to verify and correct.

Defining Smart Growth

Smart Growth is not a self-evident concept. There are many possible interpretations and each proponent is tempted to add special conditions or meanings.[1] The breadth of issues that contemporary planning must address is at the root of the open-ended nature of many Smart Growth definitions. Although this inclusiveness is not necessarily a bad thing, it can make translating Smart Growth attitudes to a specific local situation more difficult.

Rather than go into a lengthy exposition of what various Smart Growth approaches are or should be, the audit team used a working definition to guide its initial review and evaluation of current planning policies and practices in Charlotte-Mecklenburg. This working definition does not describe a system or a result (e.g. in the way that the 'heo-traditonal neighborhood"concept does). It does, in contrast, center on many generally accepted planning approaches and practices that can serve a variety of defined goals. These principles form the basis upon which to build a more definitive Smart Growth agenda for Charlotte-Mecklenburg.

Because successful Smart Growth implementation will require a broad consensus about its meaning, our working definition melds concepts from two very different sources: the Smart Growth principles that the American Planning Association (APA) has recommended[2] and a set of Smart Growth principles suggested by the National Association of Home Builders (NAHB).[3] . The different focus and aims of the two perspectives are readily apparent.[4] The planners push for more compact urban patterns, and emphasize revitalization, infill and less auto-dependency. In contrast, the homebuilders are concerned about policies that could create a shortage of developable land. The homebuilders also fear what they consider unfair development costs and housing practices that do not provide the product homebuyers want. Nevertheless, sufficient

---

[1] *Smart Growth," Sustainable Development' and "Sprawl" are all subject to conflicting interpretation and their relationship is complex. Sustainable Development (the nurturing of economic prosperity, social equity and ecological integrity) is a broader concept than Smart Growth. Smart Growth, a prime means to Sustainability, focuses on a narrower set of issues, primarily environmental and economic. Like many popular catchphrases, Smart Growth is in danger of losing its usefulness as an analytical concept. To avoid such confusion, this analysis uses Smart Growth principles as benchmarks by which to evaluate specific policies and actions. "Sprawl", (defined as homogenous, low-density, noncontiguous or leapfrog development, including ribbons of commercial development) is often regarded as the outcome of not observing Smart Growth principles. (Note that the above definition of Sprawl does not include all suburban development, only suburban development of a certain kind.) Because sprawl has already lost utility as an analytical concept and has become merely a pejorative term, we avoid its use in this report as much as possible.*

[2] *Growing Smart Legislative Guide Book, Final Edition (Draft), pages 13-2 and 13-3, APA, 1999.*

[3] *NAHB Statement of Policy on Smart Growth, pages 1,2 and 7-8, NAHB, 1999.*

[4] *A chart comparing the similarities and differences of these sources is shown in Appendix A.*

overlap between these two sets of principles makes such a merger possible.

Table 1: Categories and Principles of Smart Growth

Categories and Principles of Smart Growth
A. PLANNING CAPACITY & QUALITY
1. Anticipating & providing for development and growth
2. Long-term comp plan w/adequate land supply
B. URBAN FORM
3. Compact Development
4. Protection of Natural Resources
5. Substantial public open space
6. Infill Development
7. Variety of Housing
8. Mixed-Use, Walkable Neighborhoods
C. INFRASTRUCTURE
9. Balanced multi-modal transportation
10. Maximizing existing infrastructure
11. Timely Provision and Fair Funding of New Infrastructure
D. SUPPORTIVE DEVELOPMENT DECISION-MAKING PROCESS
12. Reasonable, predictable and efficient plan review process
13. Supporting fiscal policies
14. Ability to integrate land use, transportation and infrastructure decisions

Italics = APA principles

Regular typeface = NAHB principles

Bold typeface = Audit team additions

Table 1 combines the APA and NAHB lists to give us a working definition of Smart Growth.[5] The audit team also added two process-related principles (13 and 14) that are significant for the implementation of Smart Growth principles. To facilitate analysis, the 14 Smart Growth

[5] *Not surprisingly, other groups such as the Sierra Club and the Urban Land Institute have also given Smart Growth principles their own spin. For this study, the APA and NAHB lists capture adequately a core range of Smart Growth principles. Of course, the different emphases can break out into full-scale conflict. Raising the issue of Urban Growth Boundaries, for example, will surely provoke heated disputes. Nevertheless, the resolution of these potential conflicts to meet the needs of a specific community is precisely what Smart Growth audits must address.*

principles are grouped under four major categories: Planning Capacity and Quality, Urban Form, Infrastructure, and Supporting Development Decision-Making Process.

A host of characteristics, indicators, tools or techniques that further elaborate the meaning of each principle are also specified. (Table 2). These indicators provided one means to evaluate the Smart Growth effectiveness of the various planning documents that the team reviewed. The principles are, in practice, goals or policies that together constitute an operational definition that can move the Smart Growth discussion in Charlotte-Mecklenburg forward.

Table 2: Characteristics or Indicators of Smart Growth

1. Anticipating Growth & Planning Needs
Demand-driven projections
Employment projections driven by state, regional & local trends
Population projects births, deaths & migration
Plans updated every five to ten years
Interjurisdictional process to reconcile top- down v. bottom-up projections and local plans
2. Long-term Comp Plan with adequate land supply
Planning to a 20 to 30 year time horizon
Tie-in of demand projections to land supply
Land suitability analysis
Demand/supply ratios of 1:1.25 to 1:2.5
Comparative analysis of land use, zoning and master plan
Consistency of long-term sewer, water & road plans with the land use plans
3. Compact Development
Utility Phasing
Intergovernmental Agreements
Special District Authorities
Preferential Assessments
Minimum Densities/Intensities Established
Transfer of Development Rights
Purchase of Development Rights
Agricultural Zoning
Urban Service/Growth Boundaries
Extra-Territorial Authority
Growth Limits
4. Protection of Natural Resources
Open Space Requirements
Clustering Requirements
Best Management Practices
Water Quality Controls
- Stream and wetland buffers
- Steep slope protection, etc.
Watershed Planning and Management
Environmental Threshold Standards/Carrying Capacity Zoning
Distribution of open space provides access for all
Comprehensive system v. random holdings
Adequate policing and maintenance
6. Infill Development
Incentive Zoning
Neighborhood Conservation and Revitalization Programs (restrictive zoning, traffic calming, rehabilitation programs, etc.)
Buffering Requirements where appropriate
Historic Preservation Ordinances
7. Variety of housing choices
Affordable Housing Program
Linkage Programs
Inclusionary Housing Requirements
Multi-family & attached housing zones available
8. Mixed-use, walkable neighborhoods
Provision for Mixed Land Uses
Provision for TND's
Access management measures
PUD-type available
Defensible Space Standards
Provisions for New Towns and Rural Villages
For collector roads and below:
- Narrower rights-of-way
- Narrower cartways
- Tighter horizontal curve radii
- Tighter corner radii
- Allowing grades up to 10%
- Short streets
Promotion of connectivity
Provision for traffic calming measures
Sidewalk requirements and connectivity
C. INFRASTRUCTURE
9. Balanced multimodal transportation
Congestion Pricing/Full Cost Pricing
Transit planning and incentives

A. Table 2 (Continued): Characteristics or Indicators of Smart Growth

Critical Area Designations	**12. Reasonable, Predictable & efficient plan review process**
Conservation Easements	Preferential Review
Forest Preservation	Jobs/Housing Balance Requirements
Landscape Ordinances	Design Guidelines
Performance Zoning	Densification around stations
Land Acquisition	Cash-Out Parking
Conservation Planning/Zoning	Reduced Parking ratios
Mitigation of Development Impacts	Shared Parking
Air Pollution Mitigation	Bikes to be accommodated in road standards
10. Minimizing costs by maximizing existing infrastructure through coordinated land use/transportation planning	Fast Tracking
Special Districts	Subjectivity in ordinance interpretation minimized; discretion defined
Functional Plans (schools, roads, parks, etc.)	Procedural standards spelled out
Project Point or Rating Systems	Public participation does not accommodate obstructionism
Privatization	Most development is "as-of-right" w/standards
Developments of Regional Impact Reporting	Statutory timeframes mostly met
School Sizing, Location and Access	Most routine development approved by staff or Planning Commission, not elected officials
Comparative cost analysis for rehab. of existing infrastructure	**13. Supporting Fiscal Policies**
Interjurisdictional infrastructure/services agreements	Fiscal incentives available in plan review process (speed, fees, guarantees, flexibility, etc.)
Joint Powers Authority agreements	Tax Increment Financing
11. Timely Provision and Fair Funding of New Infrastructure	Tax Abatement
Capital budget is a "good faith effort"	Land Taxation
Marginal cost analysis of new growth	Location Efficient Mortgages
Evidence of implementing CIP over time	Tax Base Sharing
CIP correlates with land use/transportation plans	Impact Fees
Exactions	**14. Ability to Integrate land use, transportation and infrastructure decisions**
Adequate Public Facilities Ordinances	Functional plans are integrated, cross-referenced and driven by the Master Plan
Analysis of who pays and who benefits	Coordinated implementation of land use, transportation and infrastructure
"Fair share" concept applied	Institutionalized forums and support for interagency implementation

Source: LDR International, Inc., 1999. Categories 1-12 based on a Draft from APA's Growing Smart Legislative Handbook, Ch. 13, p 13-2, 1999 and on NAHB Smart Growth Report, p 10, 1999.

Applying Smart Growth to Charlotte-Mecklenburg

To evaluate the use of these Smart Growth principles in Charlotte-Mecklenburg, the team reviewed current plans and documents that local planning staff had selected, interviewed knowledgeable local people,
reviewed the local decision-making processes, and assessed as best it could the Smart Growth strengths and gaps of current plans, policies and practices.

To evaluate the key plans and documents against the Smart Growth principles and indicators (or criteria), Table 2 was used as a guide for the reviewers to note whether a particular Smart Growth indicator is part of the policies or practices being analyzed and to allow for brief reviewer comments. This was done for all 30 documents reviewed.[6] These reviews constitute a useful summary of existing studies, plans and documents and are the baseline for the team's judgments about the Smart Growth strength and gaps of Charlotte-Mecklenburg's current planning framework and its ability to reach the goals that its planning policies have established.

The consultants also conducted 19 interviews with key stakeholders in the Smart Growth debate. The parties interviewed represented a wide cross-section of opinion about development and growth management issues. These interviews provided valuable insights into the dynamics of growth and development in Charlotte-Mecklenburg and the six independent towns. The interviews provided leads for further investigation and gave a better, if still limited, understanding of the current development decision-making process. Through the contradictory positions revealed, these interviews indicated important areas where Smart Growth consensus needs to emerge.[7]

Limitations of This Study

The documents reviewed were almost exclusively policy statements, generalized evaluations of current problems, descriptions of individual agency goals or desires or reviews of typical planning ordinances such as zoning codes. More specific implementation tools, such as design manuals that do much to determine the quality of the environments created by planning policies were outside the scope of this project. Subsequent review of such documents is required to flesh out and give balance to this evaluation.

An independent analysis of current development trends or existing conditions in Charlotte-Mecklenburg, not conducted as part of this study, is another important component of a more complete Smart Growth evaluation. A Smart Growth evaluation is also needed for the Charlotte-Mecklenburg capital and operating budgets and the processes whereby they are developed and approved. These funding documents represent how well the various planning goals are translated into priorities for action.

Governance and legal powers are other areas that require further investigation. The powers of the state, city, county and the six towns to deal with Smart Growth needs were not systematically addressed by this Smart Growth audit. Specific codes such as the zoning and subdivision regulations were thoroughly scrutinized. However, the team did not delve into such issues as what measures may need authorization of the state legislature, what current powers may need amending, or how effectively do the city, county and the

[6] Appendix B lists the documents reviewed.

[7] Appendix C lists those interviewed.

towns exercise the powers that they now possess to regulate growth.

IV. Evaluating Charlotte-Mecklenburg Against Smart Growth Principles

Introduction

This section describes the team's judgments about how well the fourteen Smart Growth principles are put into practice in Charlotte-Mecklenburg. The discussion of each principle examines four topics: Conceptual Completeness, Analytical Adequacy, Level of Implementation, and Institutional Readiness.[8] Judgments about the positive dimensions of current planning practices (strengths) and areas where Smart Growth measures are less rooted (gaps) are products of this analysis.

A. Planning Capacity and Quality

Principle 1: Anticipating Growth and Planning Needs

Strengths:

1. *Vision of desired future in such documents as the 2015 Plan, the 2025 Land Use-Transit Plan and the Centers and Corridors concept.*
2. *Solid countywide projections based on WEFA model.*
3. *Close city-county coordination of planning priorities.*
4. *General Development Policies, District and Area Plans are good translators of general policies to local level.*

Gaps:

1. *Unclear relation of policies of six towns to 2015 Plan and Centers and Corridors implementation.*
2. *Regional dimension of planning weak; little coordination.*
3. *Lack of countywide mapping of policies and land use to give clear summary of cumulative results of policies.*

[8] *These principles are further defined as follows:*

Conceptual Completeness
1. *Ideas well-defined and detailed.*
2. *Idea cross-referenced and fleshed out in several plans and documents.*
3. *Goals and objectives (preferably measurable) are identified for the idea.*

Analytical Adequacy
1. *Sufficient data developed to define extent of issue/problem.*
2. *Data is up-to-date.*
3. *Analysis set in context and interrelated with other issues.*

Level of Implementation
1. *Element clearly embodied (and implemented) in codes, regulations and other tools.*
2. *Evidence exists of achievement of objective or strategies.*
3. *On-going monitoring, feedback and adjustment systems are in place.*

Institutional Readiness
1. *Agency/ies identified to implement and monitor objectives (accountability & responsibility clear).*
2. *Interagency coordination, if required, is in place.*
3. *Evidence of political support and will to move forward.*

Conceptual Completeness and Analytical Adequacy:

Charlotte-Mecklenburg (C-M) has always paid close attention to its growth projections. Its current projections and Have no geographic base smaller than the County as a whole. The eventual divison of the entire county into a large city and six national, state, regional, and local trends and reflect demand rather than artificially imposed ceilings or targets. Their use of employment growth to help derive other growth projections is methodologically sound and sophisticated. The population module is a cohort survival model, with migration numbers generated by the model's economic growth component.

The WEFA projection series is extensive and includes population, employment by sector, income, age breakouts, ethnicity, housing type and price, and car ownership. In anticipating countywide growth needs, Charlotte-Mecklenburg works off a very good and complete base.

Nevertheless, Charlotte-Mecklenburg does not have a well developed and institutionalized methodology to allocate this anticipated future growth among the various subjurisdictions and planning areas. Such allocations are the basis of coordinated planning for infrastructure, public facilities such as schools and other services in tandem with the growth or redevelopment of specific localities within Charlotte-Mecklenburg.

The WEFA model is an econometric one and operates without reference to any physical framework. Charlotte-Mecklenburg is treated as an abstraction and the trends it analyzes have no geographic base smaller than the County as a whole. The eventual division of the entire county into a large city and six smaller towns is not recognized. Consequently, the WEFA trends literally lack grounding--i.e. any direct relationship to the varied physical, social, and economic realities that real planning decision will need to address. For example, these WEFA projections do not consider whether there are available workers to fill the projected jobs within the metropolitan area, whether land availability and holding capacity will be in balance, constraints on accessibility that deteriorating traffic conditions may impose and so forth. These projections are, therefore, feasible targets rather than future givens.

Because most planning for future land use, transportation, schools, and utilities occurs at a subarea level, this deficiency requires Charlotte-Mecklenburg to focus more attention and expand inter-agency investment in a consensual process and methodology. The current disaggregation/allocation process is essentially driven by CDOT, with relatively pro forma sign-off by other agencies and the six towns.

The 2015 Master Plan was developed in 1995 to update the 2005 Plan, which was written in 1985. The 2005 Plan contained fairly detailed land use maps and policies and spawned a number of highly specific District and Area Plans. In contrast, the 2015 Plan focuses on policy, but presents no extensive analysis or maps. Ongoing District planning and the General Development Policies document flesh out the 2015 Plan policies and apply these policies to specific local situations. But there is no easily understood public document depicting how the general growth policies of the 2015 Plan would create a definitive countywide geography, how these policies would work their way through the planning maze of seven independent jurisdictions and how

interdependent the city, county and the six towns will become.

Although detailed data and analysis are not part of the 2015 Plan, such documentation is a notable feature of the District and Area plans. The two Neighborhood Indicators Assessment documents, one for CWAC and the other for the rest of Charlotte-Mecklenburg, are models of analysis of location-specific conditions and are nationally recognized for their value as planning tools. Such thorough understanding of local conditions and opportunities is an important part of the success of local area planning initiatives. This detailed knowledge also supports the successful public/private cooperation that drives implementation of area plans.

Level of Implementation:

There is little widespread understanding and use of the projections within Charlotte-Mecklenburg. Even though they inform such major planning efforts as the projections used in the 2025 Land Use-Transit Plan, their full potential as planning tools is still largely untapped. The Charlotte Mecklenburg Schools (CMS) student projections correlate with the WEFA projections and other government agencies may use WEFA-based information supplied by the Planning Commission. But other potential users are few. For example, the Economic Development Study by the Chamber takes no account of WEFA's employment sector forecasts even though these forecasts help make the case for relating changing housing needs to economic development. For agencies and individuals concerned with issues such as planning for health and medical services, labor pool availability, housing affordability, the potential for gentrification and numerous other social and economic issues, these projections offer a rich vein of valuable information that is yet to be mined.

Assuming a more geographically precise set of projections and allocations for subareas and the entire county will eventually be in place, there is a need for a Development Monitoring System (DMS) to check systematically and correct these projections against real events on a regular basis. A system to continually track growth and development would furnish agencies and elected officials important feedback about the pace and location of existing and pending growth in Charlotte-Mecklenburg. If needed, mid-course corrections in implementation of planning goals could be worked out to head off emergencies in provision of roads, schools, infrastructure and services. The recent linking of the County Tax Assessor's database to a Geographic Information System (GIS) is a big step toward making development monitoring more feasible. Nevertheless, the available databases are still not well organized for development tracking. (The assessors coding of "land use", for example, seems more related to potential highest and best use and not necessarily to existing uses.)

Institutional Readiness:

Although the Corridors and Centers Vision establishes an overall framework for the future growth of the county, there are large gaps in executing this vision. Although the joint Planning Commission achieves an extremely high level of city-county coordination, planning coordination between the county and the six towns is less efficient. The South and Southwest and East district plans, for example, split the eventual spheres of influence of Pineville and Matthews. The Northwest and North split Huntersville, Cornelius and Davidson. Because much undeveloped land is within the six towns'

spheres of influence, successful implementation of the Centers and Corridors vision and the 2025 Land Use-Transit Plan depends in good part on the actions of the towns, especially in the north. The planning policies that these interdependencies require need to be more formally articulated

A joint approach to environmental, transit, utility, and zoning issues by the three northern towns would greatly support the Centers and Corridors vision, as would an analogous Mathews-Pineville strategy. The newly formed Metropolitan Transit Commission (MTC) is a forum for transit and land use planning and the financial incentives built into the MTC agreements and structure will be significant incentives for interjurisdictional cooperation. Nevertheless, the leverage to foster more broad-based collaboration is yet to be developed.

Several of those interviewed commented on the confusing multiplicity of regional planning bodies in the area. Because Charlotte-Mecklenburg lies at the heart of a concentric tier of counties, the formation of one MPO that covers the entire Charlotte-Mecklenburg region) might be the first step in fostering more coordinated regional thinking and action about transportation issues.

Principle 2: Long-term Comprehensive Plan with Adequate Land Supply

Strengths:

1. *2025 Land Use-Transit Plan divides growth into corridors and wedges as basis of detailed implementation of Centers and Corridors.*
2. *Neighborhood Indicators give a very thorough picture of existing conditions.*
3. *Needs of inner city neighborhoods well documented and provided for through CWAC and related policies.*

Gaps:

1. *Lack of adequate database and tracking system to evaluate effectiveness of land use policies.*
2. *Land supply/ land demand for build out of official policies not done at countywide or District plan levels.*
3. *Plans of the six towns not fully incorporated in 2015 Plan vision.*

Conceptual Completeness:

Charlotte-Mecklenburg has a notably strong history of broad-based visioning and planning. The 2015 Plan process, the Committee of 100, the Committee of 10, the Advantage Carolina agenda of the Chamber of Commerce, and the regional Voices and Choices initiatives are examples of effective citizen, business and government actions to address future needs. These efforts have cultivated a general consensus about big picture items such as the Centers and Corridors vision and the need for transit planning. What seems missing however is a comprehensive overview of what needs to be done to achieve these big picture goals.

Charlotte-Mecklenburg's last two master plans, for example, had 20-year time horizons and projections. But there is no countywide analysis of land demand versus land supply, or comparison of existing and proposed land uses to zoning and master plans. The Joint Use Task Force, the 10-year Capital Needs Assessment and the CMS Master Plan document much of the future need for facilities and services. But, apart from a Major Thoroughfare Plan, location and reservation of sites for future community facilities (such as parks, schools, libraries, fire and police facilities, social services and health clinics, etc.) are not coordinated with proposed land uses (including open space) and road improvements on a comprehensive countywide plan. Locating these facilities, even generally, would allow Charlotte-Mecklenburg to require reservation or dedication of lands from developers and would greatly improve coordinating needed infrastructure and services with land use changes.

The master plan of the towns (or their proxies, such as their zoning maps) are rarely incorporated or otherwise indicated in county-wide planning maps or documents.

A systematic overview of future land uses and long-term growth needs in the more suburban areas of the county and within the six towns as well as the relationship of such growth to the timing and cost of infrastructure would add tangibility to the generalized Centers and Corridors vision.

The District Plans provide much detail about existing and proposed land uses, the location of major proposed developments, and the relationship of various land uses to each other and to the local need for schools, recreation and other services. Nevertheless, these more focused District Plans would benefit from a periodic comparison of land supply to long term land demand and a more integrated timeline for implementation of needed infrastructure and facilities. The corridor land use analyses that will be part of the implementation studies for the 2025 Land Use-Transit Plan should lead to modification of the District Plans.

Analytical Adequacy:

Many of the analytical gaps cited above stem from a lack of data and analysis. The recent startup of GIS access to the Tax Assessor's database can greatly increase the ability to create an efficient, easy-to-manage development tracking and available land inventory. Better integration of the Assessor's data sets and codes into the Planning Commission's GIS planning system would enable planning staff to produce maps and data that reliably depict existing conditions. The current district and area plans and current zoning need to be added as a digitized layer within the GIS system. Software programs for integrated development tracking systems that can monitor projects from concept plan through use and occupancy certificates are widely available and could be used in Charlotte-Mecklenburg. The Planning Commission is moving ahead with such an agenda.

Level of Implementation:

The admirable drive towards specific performance measures evident in the city and county strategic planning documents is a good Smart Growth initiative, but the lack of readily available data and monitoring hinders specifying meaningful planning performance measures and outcomes. Instituting a refined and more accessible GIS data base would likely improve the efficiency of available staff resources when involved in such tasks as rezoning evaluations or comments on facilities location (e.g. school sites) that will all help achieve the long term goals of local plans.

Institutional Readiness

Planning Commission staff are assigned to two divisions – current planning (to deal with rezonings, plan review and similar items) and community planning (to focus on district and neighborhood planning).

As the FY2000 Planning Commission Business Plan indicates, staff resources to perform its current responsibilities are already stretched. The upgrading of the GIS system may provide some improvements in productivity and relieve staff burdens for certain tasks. But the team anticipates that implementing the 2025 Land Use-Transit Plan corridor studies and subsequent associated changes to the District Plans much less than taking on any new Smart Growth responsibilities (such as the recommended development tracking system) cannot be fully accomplished without increases in staff resources. (See also Principle 14-- Integrating Land Use, Transportation and Infrastructure Decisions.)

B. Urban Form

Principle 3: Compact Development

Strengths:

1. *Highly developed urban sensibilities promote conservation and revitalization of traditional inner city neighborhoods.*
2. *2025 Land Use-Transit Plan concentrates more growth in corridors emphasizing compact station area developments.*
3. *Plans of northern towns center on hierarchy of neighborhoods.*

Gaps:

1. *Prominence of low density residential zoning in all jurisdictions. Too few by-right compact development opportunities.*
2. *Clustering requirements or other incentives for compact development are underdeveloped.*

Conceptual Completeness:

Compact development is a goal of several adopted Charlotte-Mecklenburg plans and documents. The regional Centers and Corridors vision will require more compact development and higher densities than prevail today.

Charlotte-Mecklenburg has begun to adjust its development patterns to achieve this goal. The 2025 Land Use-Transit Plan (1998), for example, advocates density/intensity thresholds for multi-family and employment development around transit stations and recommends a modification of the current policies for dispersion of multi-family housing to direct a higher proportion to the transit corridors.

Securing more compact development will not be easy. Some significant employment concentrations have emerged (e.g. South Park) and compact mixed use or residential site plans have been proposed for selected areas such as the South End. Nevertheless, most pending non-residential development is now, in fact, outside the transit corridors, a reality at odds with the vision of a densified Centers and Corridors future. The northern three towns have been exploring alternative development patterns to the typical suburban pattern. But, except for a concern for the vitality of their downtowns, the three southern towns have not viewed compact development as an important goal. Indeed, in Mint Hill, a lower density, suburban housing pattern is its desired future.

The goal of current policies is to promote compact development in strategic locations (such as the transit corridors) to give residents more choices of living environments. In the towns, more compact development is a strategy for protecting the traditional character of these communities. But more thinking about compact development needs to be done to make it a key part of future initiatives such as Transit District zoning.

Analytical Adequacy:

The degree to which compact development exists within the city, county and towns is largely undocumented.

The potential for significant low-density, discontinuous development with its possible

stresses on infrastructure and services still exists. Our own analysis of the assessor's database shows that 52% of Mecklenburg County's land (including the towns) is still undeveloped, including 43% of land in the transit corridors.

The impact on roads and schools of the more compact growth called for by current policies requires analysis. A "build-out" test was run by CDOT some years back, but its results were not subject to much analysis or interpretation. Given the pace of growth in Charlotte-Mecklenburg, testing the impacts on the road and school systems of a build-out scenario using today's prevailing densities and another scenario using more compact development at slightly higher densities would be a desirable and important planning aid. Also useful would be a market study of the size of the future market and the preferences of this market for more compact, urban housing. Such a study would help prepare planners to deal with the numerous site planning and design quality issues that will arise with further densification within the Center City and around transit stations.

Level of Implementation:

Other than the existing zoning pattern and market-driven rezonings, the city and county lack many of the tools typically used to make compact development happen. Some of the tools typically advocated by Smart Growth advocates (growth limits and agricultural zoning for examples) are irrelevant or clearly unachievable in Charlotte-Mecklenburg. Other strategies, such as minimum required densities for key sites or special Transit District zoning designations with its own set of density incentives, could help shape more compact (i.e., more contiguous and higher-density) development.

Even those available tools, such as more focused use of existing zoning categories, can be applied more productively. Only about 4.5% of currently vacant land is zoned for multi-family housing. Unless the city and county take the initiative to establish sufficient areas to meet an expected, accelerated need for multi-family housing, the future will be an extension of the current frustrating, site-by-site zoning battles to create these opportunities. (One strategy to provide for such housing would be through more mixed-use zoning, especially related to the transit station sites.)

A sharp, or at least discernible, edge between an urban and a non-urban landscape is implied in the idea of more compact development. Although this result may no longer be practical within the I-485 beltway, this concept has some potential in North Mecklenburg, with its sizable open areas that extend miles beyond the outerbelt. Outside the areas near I-77 the zoning plans of Huntersville, Cornelius and Davidson conjure up an illusion of a still rural, lower-density future. In fact, the current zoning of these towns allows standard, suburban growth at two units per acre or more, requiring public sewer and water. Water and sewer are on the drawing boards. But road improvements and new schools to serve the potential influx of new residents have yet to be comprehensively planned for and none of the three northern towns has a master plan.

Institutional Readiness:

To be an attractive alternative to the typical suburban pattern of development,

compact development requires well coordinated planning for roads, schools, open space, and sewer and water. The tight, inter-agency cooperation to secure such quality has not always been evident in Charlotte-Mecklenburg. Even now, Charlotte-Mecklenburg is grappling with heavy development pressures in the northeast, yet the parallel highway modeling and planning to assist Planning Commission staff in their efforts to secure more orderly growth seems inadequate to the scale and timing of this growth. This situation requires better interactions between the two MPO's that cover the Northeast-Cabarrus County area, the State Department of Transportation and the responsible Charlotte-Mecklenburg agencies.

In theory, more compact development in the regional core should check spread of leapfrog development on the periphery; i.e., as the center absorbs more, there should be less to spread around the edges. In reality, such theories are only wishful thinking as long as each county and town pursues its own separate interests. The Voices and Choices efforts and the Environmental Summit are a first step in establishing a rationale for regional action. Regional transportation and economic development planning should be occurring simultaneously. These initiatives indicate that this is an opportune moment for the State legislature to establish some reasonable regional planning expectations for the Charlotte-Mecklenburg area and to work to better coordinate its own actions within such a regional framework.

Principle 4: Protection of Natural Resources

Strengths:

1. *Good documentation of most environmental issues, especially water quality impacts, in the annual State of the Environment Reports.*
2. *SWIM initiative and Greenways Plan are comprehensive and well detailed.*
3. *Regional dimension of environmental problems is emerging.*

Gaps:

1. *No land conversion or resource loss tracking.*
2. *Few benchmarks or measures of success on which to structure resource and land management Best Management Practices (BMPs).*

Conceptual Completeness:

The depth of expressed concern for an environmental problem and its relationship to other Smart Growth issues varies greatly. Flooding and storm water management, the need to protect the local drinking water supplies and air quality concerns are frequently mentioned and tied to growth issues. In contrast, very few, if any, references are made to protection of open land or forest conservation (outside stream valleys).

Most documents on environmental issues that were reviewed remain at the "we have problems and we must do something" stage typical of a community starting to confront the more pervasive impacts of its rapid growth. The "environment" is often a somewhat undefined abstraction. The big picture planning documents, such as the 2015 Plan or the 2015 Transportation Plan do not incorporate any basic environmental strategy. The environment is still more an aesthetic "quality-of-life" worry rather than a functional need of a balanced county and regional geography. Such initiatives as the Voices and Choices series are quite honest in expressing a combination of frustration and admission that the scope of problems to be confronted are imperfectly understood. The recent SWIM discussions, however, indicate that a more comprehensive and better-informed sensibility is emerging.

Analytical Adequacy:

Thorough documentation of many specific problems provides a strong platform upon which to build a more comprehensive environmental planning outlook. The annual State of the Environment Report presents much detail about air, water and "waste" issues and relates these problems to specific locations and causes. The SWIM initiative has done much to create a broader understanding of how a comprehensive approach can jointly resolve different environmental problems – flooding, pollution, loss of stream buffers, loss of habitat. Nevertheless, other resource protection issues such as loss of upland forest cover and rapid land conversion are little documented or quantified.

Charlotte-Mecklenburg still needs broadly understood and politically supportable planning solutions to many of its environmental problems. Except for the SWIM stream buffer planning recommendations, the citation of problems rather than solutions tend to be

the final product of the documents reviewed. For example, the State of the Environment report calls for more Best Management Practices (BMP's) to improve water quality but does not give any examples or recommend those that may be the most effective in Charlotte-Mecklenburg. (It is understood that these BMPs are being investigated.) Also missing are key measures of success or feasible targets regarding environmentally responsible growth and land use practices around which to structure implementation strategies and gauge progress. To establish such measures, the link between growth and development practices and specific environmental impacts must be more strongly forged.

Level of Implementation:

Implementation is, not surprisingly, inhibited by the lack of specific solutions. Here too, the SWIM stream buffer plan shows this situation may be shifting, but the SWIM recommendations still require final adoption and integration into the overall growth and development review process.

One starting point could be to launch a consensus-building process to establish new guidelines or rules for other environmental issues such as upland forest preservation, habitat preservation and proper land management techniques (e.g. lawn care issues) that can complement the Swim initiatives. The recent Providence Road/ I-485 Plan is an example of how to begin to package together a series of environmental measures (tree preservation, watershed protection, open space provision and buffers).

Charlotte-Mecklenburg seems uncertain about the proper public sector role in requiring better environmental practices. The level of public sector resources, including money for land acquisition, needed to secure desired environmental outcomes seems understated or unexamined. For example, most of the documents reviewed rely heavily on private landowners doing the right thing. This approach has its merits when dealing with stable land ownership patterns in which owners may develop a strong sense of stewardship. Several local land trusts show how private owners can band together to place such stewardship on a permanent basis. Still, the results of strategies relying heavily on such personal commitments in a swiftly changing community with high rates of land transfer and environmental destabilization are likely to be disappointing.

The proposed Public Lands Acquisition and Management Strategy (PLAMS), if implemented, would be a decisive departure from current practice. To succeed, sufficient fiscal resources will need to be established.

Finally, it is not clear how well the overall development review and approval process has built in environmental sensitivities. For example, the Department of Environmental Protection would be given prime responsibility for implementing the SWIM stream valley program. But the environmental protection role or authority of agencies that approve subdivisions, issue development permits, etc., is not clear. One reason may be that many resource Best Management Practices (BMPs) are typically 'encouraged"rather than required. One goal therefore would be clearer rules and a means to coordinate them with other development requirements such as the provision of open space. The tree preservation ordinance that protects trees more than 2" in caliper is an example of such a specific requirement.

Institutional Readiness:

The Department of Environmental Protection is obviously fully engaged in a variety of environmental issues. However, these concerns do not appear to be comparably "owned" by other agencies. The planning staff, for example, do not review routine development plans, nor do they (or any other group apparently) track land conversion or loss of specific resources.

Currently, documents produced by most agencies show little in-depth awareness of how environmental quality issues should be built into their own responsibilities. The parks and open space plan, for example, has little of this sensibility although it is a logical forum for such concerns. The most recent draft greenway plan, in contrast, added environmental issues to the original greenway planning emphasis on movement (walking, cycling) and aesthetics. More of this crossbreeding will in time help create a common culture of environmental understanding among all the regulatory and implementing agencies that also must also address growth impacts and economic development issues.

Environmental requirements are never as easy to administer as the more typical zoning and subdivision regulations. Too frequently, these other requirements (e.g. setbacks, required rights-of-way or street widths) make this task even harder. This calls for some formal mechanism through which different perspectives and responsibilities for environmental issues can be better institutionalized within the development review process and guarantee that the different agencies do not work at cross purposes. Such a system to coordinate agency decisions that affect the environmental issues would be one way to broaden "ownership" of environmental issues.

Principle 5: Substantial Public Open Space

Strengths:

1. *Definitive acquisition targets for parkland/population.*
2. *Greenways Plan as model for comprehensive, linked open space planning.*
3. *Unified city-county administration with cooperative arrangements with the towns.*

Gaps:

1. *No updated parks and recreation plan.*
2. *Insufficient provision of open space in older city communities.*
3. *Inadequate funding to meet acquisition goals (e.g. greenways) has been problem.*

This principle is closely related to Principle 4 – Protection of Natural Resources. But "open space" is a more eclectic concept than "greenspace" or "natural resources" and has its own characteristics that justify its status as a discrete concern.

One primary difference is that much of any public open space system is devoted to recreation – i.e., human activities often requiring their own forms of development. Another distinction is the qualification that this open space be "public." (This does not necessarily mean it be publicly owned, but that it be publicly accessible). Many protected natural resources will remain privately owned and managed, often as part of a residential property.

The ecological functions of natural systems need protection, and they are very hard to recreate if they are destroyed or degraded. In contrast, many parts of an open space system can be highly artificial. Valuable open space can often be created from abandoned developed sites. Major parks may have few "natural' features and can be linked to each other by very urban linear greenspaces such as boulevards. Some open spaces are purely aesthetic, designed to provide a pleasing green contrast to surrounding developed properties. Others may be very architectural in form such as public squares or plazas. Even so, much of the public open space system will contain natural areas. Therefore, management of the open space system requires a variety of skills and strategies.

Conceptual Completeness:

The development of a comprehensive regional open space system should be a central part of the elaboration of the Centers and Corridors vision. A comprehensive open space plan should incorporate parks, recreation sites, formal open spaces such as squares and plazas, natural areas such as stream valleys, important forest stands, historic sites and landscapes and rural (but not agricultural) landscapes. Such a comprehensive open space strategy should encompass a number of community needs – active recreation facilities, transportation links, visual interest, relief from overcrowding and public stewardship of fragile environments.

Currently, no comprehensive overview of all of Charlotte-Mecklenburg's open space resources, needs and desires exists. The

official parks and open space plan is a decade old and focused primarily on meeting the recreation needs of a growing population. The new draft greenways plan is much more ambitious than past versions. This greenway plan deals primarily with stream valley environments but also provides for secondary connections to such features as schools. A big issue not clear from the documents reviewed is how open space linkages can be retrofit in the older sections of the city and how much such a strategy might cost.

A comprehensive open space system should probably be envisioned on a regional scale. If implemented, the PLAMS initiative would be an important means to create such a network.

Analytical Adequacy:

The parks master plan does employ national standards for estimating open space needs proportionate to population and adopted a 19 acre/1,000 population goal, partly to catch up with rapid growth in the 1980's.

The parks master plan also uses a service area framework to distribute open space acquisitions and recreational facilities equitably throughout the county. The plan also set 20 top priorities. The draft greenways plan is partly driven by documentation that floodplain levels have been significantly altered by development patterns and practices and Charlotte-Mecklenburg requires better protection of its stream valley environments.

Lack of a good land use database, especially one that indicates the location and rate of land conversion, limits understanding of the overall land dynamics within which an open space system needs to be created. The parks master plan, for example, assumes its target of 19 acres/1,000 persons can be met until the population reaches 600,000. There is no indication of where this will be done or how or where future needs can be fulfilled once this population is exceeded. Additionally, there is no sense of how any open space supply/demand fits with the overall land supply/demand for residential and non-residential development needs (nor how much this might cost once open land in general becomes rarer in Charlotte-Mecklenburg).

Quasi-open spaces such as school campuses, water supply sources and TDR sending areas can also be part of such a system. Not all these features need be publicly acquired, but there should be a strategy to tie them together and set standards for management, public access and appropriate uses. An inventory of all these resources should, therefore, be part of any comprehensive open space planning.

Level of Implementation:

Open space systems need to be actively managed and this appears to be true in Charlotte Mecklenburg. Much of the recreation programs and many maintenance services have been outsourced with great savings to the operating budget. The relationship of the county department to those of the towns is good.

The draft greenway plan is the star performer as an implementation guide. In other ways, the record is less consistent. The county and city zoning and subdivision codes have some limited open space requirements, but the towns are less specific. Clustering is "encouraged" in most zoning codes but not required. Perhaps in certain situations, requiring clustering could set aside valuable open space resources and linkages. Better open

space requirements would help provide for active recreation space, not just set aside stream valley areas as is the typical result today. A fee-in-lieu system that was adequately priced could be a good source for purchasing needed neighborhood park sites.

A big planning deficiency is the lack of an updated parks master plan. It is ten years since one was formally adopted. Given the rapid rate of growth in Charlotte-Mecklenburg, such a plan should be updated (if not redone) at least every five years or so just to ensure supply is keeping up with demand.

Implementation of all related plans -- parks, greenways, the bicycle plan, e.g. -- could be better coordinated and adequate resources (including staff and money) needs to be provided. The failure of the first two greenway plans to even remotely meet their acquisition/preservation targets indicate that, up to now, much open space planning has lacked real commitment and adequate political support.

Such serious underachievement, the continued lack of adequate monitoring of land conversion and the fragmented nature of the different open space planning initiatives call for more concerted action.

Institutional Readiness:

A key issue is the lack of adequate resources to structure, fund and carry out an overall strategy to piece together the main elements of a comprehensive system, especially in the inner city areas. An open space system is a form of infrastructure. It needs to be created in an orderly and purposeful way similar to how road and utility networks grow. The primary difference is that an open space system, to be most effective as a shaper of the future metropolitan landscape, needs to be created and in place well ahead of the growth it will eventually serve. Such acquisitions can also be coordinated with other public land needs such as finding and buying appropriately located sites for schools, fire and police stations or other public facilities.

A regional open space strategy would be in keeping with planning traditions in other metropolitan areas. In these cases, the central jurisdiction took the initiative to sponsor such regional systems to give its own citizens opportunities for recreation and contact with nature that it realized would become unavailable in a growing central city. Establishing such regional systems was often done through creating a quasi-governmental agency to acquire and manage them. Any such agency created to do this must be adequately funded, perhaps through a dedicated source such as real estate transfer fees or as part of fees charged as part of the subdivision process.

A regional open space plan could establish the scale of future acquisition needs, their location and what they could be used for. Creating such a system requires a more thought-out vision and closer cooperation among the city, the county, the six towns and ultimately, adjoining jurisdictions than currently exists.

Principle 6: Infill Development

Strengths:

1. *Corridors strategy of 2025 Land Use Transit Plan encourages infill and revitalization.*
2. *Excellent record of planning for infill and revitalization of inner city neighborhoods through CWAC initiatives.*

Gaps:

1. *Zoning incentives for infill and densification are too few.*
2. *Town plans do not pay much attention to infill.*

Infill development includes filling in vacant lots and areas within neighborhoods that were bypassed or created by demolition or abandonment. The term encompasses both residential and non-residential development. Infill development also implies revitalization through rehabilitation, adaptive reuse and redevelopment. Infill does not necessarily mean higher densities. It may, particularly in historic areas, mean compatibly-scaled development and strengthening of the existing fabric and character of an area. Where infill occurs as the result of strong market forces, as in some areas near downtown, it can, of course, lead to densification. While the term is most often applied in urban contexts, it is also used to refer to bypassed lands in suburban growth areas where leapfrog development has prevailed.

Conceptual Completeness:

Infill in Charlotte-Mecklenburg's planning documents usually means redevelopment in the City Center and the CWAC areas. The residential areas within the I-277 loop have been the target of sustained infill and redevelopment efforts over the past decade with clear successes in the First, Third and Fourth Wards. Much of this has come after extensive urban renewal. This infill is driven by a strong, rising demand for Center City housing.

In the CWAC areas, infill is variously part of strategies for stabilization to retain middle income residents as well as efforts to turn fragile and deteriorating areas around. There seems little desire to repeat the earlier, clean-slate approaches in the Center City. Extensive planning and community outreach in the CWAC neighborhoods are evident in the city's Focus Area Plans, that treats the CWAC as a priority.

In contrast to Charlotte's energetic commitment, the six towns do not address infill development other than in their downtowns. However, the functional obsolescence of some older strip commercial areas in the towns should concern them. Since only four of the six towns have master plans, it is difficult to gauge the depth of their thinking about infill needs.

Analytical Adequacy:

Charlotte-Mecklenburg has lavished much analytical attention on the stabilization, redevelopment and revitalization programs in the Uptown and CWAC areas. Infill development, as a component of this effort, benefits from this attention.

The Neighborhood Indicators Study, as cited in Principle 1, is a model of its kind. The Quality-of-Life Index and the

Neighborhood Action Teams are also expressions of close attention to details. The effort to specify performance measures in the city's Focus Area Plans for CWAC is impressive and commendable.

The work of the Planning Commission in such areas as the South End, Plaza Central and the Downtown wards is now bearing fruit and demonstrates how success stems from application of adequate resources to an adventurous yet doable vision. It would be useful to document quantitatively how Charlotte-Mecklenburg 's concerted attention to these and other of its inner neighborhoods has stimulated infill. This achievement could be measured in several ways (e.g., number of units, square feet of non-residential building, spin-off and ripple effects, cost-effectiveness, private dollars leveraged by public dollars, relative allocation of CIP dollars to CWAC vs. other areas, etc.). Such a "scorecard" on infill successes may exist, but it was not evident in the material we reviewed. It is highly recommended.

Level of Implementation and Institutional Readiness:

The Charlotte-Mecklenburg Development Corporation (CMDC) has been formed to focus on the Wilkinson Boulevard redevelopment opportunities and has sponsored some planning and reinvestment interest in key properties. Here and elsewhere in the CWAC, various forms of assistance to small businesses for building and site improvements are also available as part of an effort to sustain locally owned positive neighborhood assets.

From a regulatory viewpoint, the creation of the Mixed-Use Urban Districts (UMUD) and the Pedestrian Overlay District (POD) are other positive steps in creating interest in infill development. The examples of these two districts point the way to promote infill development as an essential element in transit station planning. Judicious land banking by the city at important sites at future stations should also begin as soon as these station sites are fixed.

A large infill issue not dealt with is the degree to which the suburban periphery that is wide open to development may have the advantage of hidden subsidies or other policy-induced (non-market) advantages in its competition with an older inner ring. Planning policies and techniques that reduce overt or hidden subsidies to new development on the edges can level the playing field. The center is often very fragile; creating a fairer context for its ability to compete should be part of any future Smart Growth strategy.

Principle 7: Variety of Housing

Strengths:

1. *Revitalization in the CWAC area; establishment of a Housing Task Force.*

Gaps:

2. *Too few by right medium and high-density residential zoning districts or mixed-use opportunities to provide sites for wider variety of housing choices.*

Charlotte-Mecklenburg has a Consolidated Housing Plan but it was not included in the team's review. Because a Housing Task Force is addressing these issues, the team did not overlap the Smart Growth audit with this task force effort. The following comments regarding housing issues are offered only because they relate directly to other Smart Growth principles discussed in this audit.

Discussion of the need to constantly reassess the balance of land supply to land demand is found under Principle 1. One reason for this reassessment is the need to provide sufficient land for all housing choices. When there is not enough land zoned to meet the demand for apartments, for example, the cost of such land can be

unduly inflated and this eventually affects rents and affordability.

Smart Growth calls for housing needs and zoning to be well coordinated. Matthews has, for example, instituted a RVS (Residential Varied Style) Zoning District as a means to introduce some housing variety into an otherwise traditional low-density suburban environment. How the other five towns are addressing this issue should be an early follow-up task of this Smart Growth audit.

Mixed use is another way to promote housing choices. Principles 8 and 12 deal with some of the obstacles to more mixed use development.

Principle 8: Mixed-use, Walkable Neighborhoods

Strengths:

1. *Good urban mixed-use examples in Downtown. Many older neighborhoods are good examples of medium density mixed use. Phillips Place is an example of good, more- contemporary, higher density mixed-use center.*
2. *Northern towns incorporate mixed-use goals in their development plans.*
3. *Sidewalk program to retrofit many existing neighborhoods for better pedestrian movement.*

Gaps:

1. *Continued prevalence of low-density, single-use residential zoning.*
2. *Connectivity between neighborhoods or developments often lacking or thwarted by excessive buffering or other conditions for approval.*
3. *Conditional zoning requirements (rather than by-right opportunities) discourages developers from trying more mixed use.*

Conceptual Completeness:

Mixed-use, walkable neighborhoods is a goal in numerous Charlotte-Mecklenburg planning documents. The concept is also referenced in several area plans and in the General Development Policies (GDP). The zoning ordinance has MX (Mixed-use), UMUD (Uptown Mixed-Use District) and UR (Urban Residential) Districts that would create such communities. Provision for shared parking, an important attribute of mixed-use, is in the ordinance.

Zoning for Mixed-Use Districts is now primarily in the City Center. The 2025 Land Use -Transit Plan, however, calls for proactively zoning for mixed-use areas around many of the future transit stations. The city's recent initiative to require more sidewalks in residential developments is evidence of movement towards the basic building blocks of walkable neighborhoods.

Other aspects of walkable neighborhoods – narrower, traffic-calmed streets – are not yet on the horizon. Charlotte-Mecklenburg's standards for local roads are conventional, with large cartway widths and geometric standards that encourage speeding. The standard suburban hierarchy of collector through local roads and cul-de-sacs is in force.

The three northern towns with their interest in neo-traditional planning have all adopted variants of policies promoting mixed-use, walkable neighborhoods (so far to the virtual-and unfortunate-exclusion of other patterns of development). Matthews and Mint Hill provide for a mixed-use, walkable downtown in their plans and regulations but not elsewhere. Mint Hill explicitly rejects most non-residential uses outside its downtown. Pineville does not address this issue. The towns therefore are very divergent in their approach to this issue.

Analytical Adequacy:

The concept of mixed use, walkable neighborhoods needs to be further refined in the documents that affect how sites can develop. For example,

- *Up to 50% of parking may be shared in mixed-use developments, but no clear standards for combining uses are specified.*
- *Only the UMUD District has urban design standards, the other mixed-use districts do not.*
- *Permitted block lengths are very long (2000 feet).*
- *While buffering between different land uses makes sense within conventional suburban settings, it is often entirely inappropriate in MXD's and the regulations do not currently acknowledge this mismatch.*

Planned Unit Developments (PUDs), the staple vehicle for mixed-use neighborhoods in the past, are not well defined or detailed in the Charlotte-Mecklenburg ordinance and even less so in the ordinances of the towns.

Progress is being made, however. The Planning Commission is beginning to review the issue of local street standards. The three northern towns have pursued mixed-use and walkability zealously and their implementing ordinances reflect this. They typically allow mixed-use infill, NTDs, skinny streets (Huntersville), mandate rear parking, bike plans (Huntersville), encourage high densities near transit, have requirements for scale and massing and limit block and cul-de-sac lengths. Yet, even the towns need to clarify and tighten up their standards. For example, they tend to regulate by building type rather than also by use; they do not establish minimum densities and use mixes; they lack connectivity standards. The three southern towns, in contrast, have not begun to refine this concept and its components except in their downtowns.

Level of Implementation:

Because zoning and subdivision ordinances are the primary tools for implementing mixed-use, walkable neighborhoods, the above comments also apply to implementation.

Encouraging mixed-use walkable developments is a radical departure from five decades of regulatory and development practice. The development industry is, consequently, slow and cautious in embracing them. Given this environment, it is critical for the city, the county and the towns to facilitate such developments in a host of ways.

For example, there are few places to build mixed-use projects as-of-right. Mixed-use approvals are therefore invariably subjected to a lengthy and unpredictable conditional review process. Transit District zoning at many of the proposed stations may be one way to add to the pool of by-right mixed-use sites. Charlotte-Mecklenburg could provide public infrastructure and amenities ahead of time at designated mixed-use locations to signal to the private sector its support for such developments.

Even were there more by-right locations, other incentives are likely to be needed. Procedural, financial or construction incentives such as fast tracking, tax abatement or reduced road standards should be considered as part of such implementation incentive packages.

Where mixed use may remain a conditional use, the process for approval needs to change. Currently, the quality of major rezoning submissions is too erratic. Charlotte-Mecklenburg needs to upgrade its standards for the content of such submissions, particularly those purporting to provide for mixed-use, walkable neighborhoods, where the details of the proposal are crucial. This does not

require overly detailed site plans, but rather an explicit description of design principles that the applicant will adhere to.

Institutional Readiness:

Mixed-use as a still-innovative concept tends to elicit opposition and resistance. Elected officials, who ultimately decide to approve or disapprove such developments, need a process that clearly defines standards, reduces decision-maker subjectivity and allows more administrative approvals by qualified staff and the Planning Commission. Neighborhoods, too, will be somewhat mollified by greater clarity in standards and more concrete (and enforceable) assurances that any potential impacts of mixed-use intensification will be dealt with. Otherwise, approving mixed-use, walkable neighborhoods will remain hotly contested, heavily politicized and reluctantly attempted.

Raising the threshold for design quality across the board may increase development costs some. However, experience indicates that an emphasis on design quality, open space and other amenities in themselves make communities more desirable and marketable at higher prices. The tradeoff of higher quality in return for clearer standards for the development community is in the time saved and predictability gained through a more administrative and less subjective process. The tradeoff for elected officials is fewer confrontational public hearings. The gain for the general public is improvement in the long-term value and attractiveness of the community as a whole.

For the three northern towns, the problems are different. The town ordinances are geared for mixed use but are also highly colored by strong adherence to New Urbanist principles. These codes lack sufficient flexibility to accommodate mixed-use solutions such as some of the Transit District concepts that do not conform to the New Urbanism model. Their codes and overall policies also neglect other very important aspects of planning such as adequately providing an economic development base in non-retail and services categories.

Mint Hill has chosen to not accept the concept of mixed-use, walkable neighborhoods and seeks to remain a largely low-density, residential enclave. Matthews and Pineville have greater regional accessibility and are strategically located near the end of the future transit lines. They may be more interested than Mint Hill in dealing with the mixed-use neighborhood issue. All three communities have an interest in the appropriate mix of uses, design quality and pedestrian accessibility of their town centers.

C. Infrastructure

Principle 9: Balanced Multimodal Transportation

Strengths:

1. *Long-range transportation planning is very strong; has 20-year horizon and clear ties to other planning goals such as economic development.*
2. *Countywide coordination through Technical Coordinating Committee.*
3. *Increasing attention to transit needs and opportunities, increasing attention to alternatives such as bicycle needs.*

Gaps:

1. *No analysis of how well road capacity will match demand generated by future land use pattern.*
2. *'Mobility"still more stressed than 'accessibility".*

For at least a decade, Charlotte-Mecklenburg has been moving towards a more balanced, multimodal transportation system. Elected officials, the Chamber of Commerce and environmental groups have been talking up multimodalism for some time. The current Bicycle and Greenway Plans are the result of priorities set several years back in the 2005 and 2015 Land Use and the 2015 Transportation Plans. The recently completed 2025 Land Use-Transit Plan stands on the shoulders of such earlier studies and much dedicated work by the Committee of 100 and Committee of 10.

Although, many facets of a balanced, multimodal transportation system have been explored, there are still some conceptual gaps.

The 2015 Transportation Plan (1995), driven by mobility and speed criteria, asserts that more funding for more lane miles of road will maintain current levels of service. Yet DOT's everywhere are beginning to realize that this type of strategy is less and less tenable. Latent and induced demand usually emerges quickly to preempt this new capacity. Declining state funding is also eroding reliance on new construction to solve traffic problems.

DOT's are increasingly concerned with accessibility , rather than mobility, accessibility brings land use directly into transportation decisions, for example by seeking to support the most regionally accessible employment locations, rather than simply to facilitate "ease of movement." Transit planning, which looks to connect given origins with given destinations, is inherently accessibility-driven.

At a conceptual level, further work should be done on the trade-off between greater spot congestion in transit station areas versus a system-wide reduction in VMT. The standard criticism of greater congestion within densified transit areas needs a clearly articulated response from the city.

The 2025 Land Use-Transit Plan provided only a sketch-level plan for connecting feeder buses to the mainline corridors. As a full transit plan is developed, any shift of formerly radial bus lines to a circumferential feeder role must be assessed for potential reductions of service now provided (particularly to lower-

income, inner-ring areas) and the overall impacts on net transit ridership of a re-oriented bus network.

As the 2025 Plan suggests, the 20-mile ring of towns and cities should be treated as the final stops of the proposed transit system. The upcoming corridor studies ought to include at least a quick examination of the potential alignments, costs and ridership of extending transit beyond the 2025 plan system to these outer communities.

The concept of a jobs/housing balance, as a way to help plan for more balanced traffic and transit flows and to reduce excessive commuting, is not invoked in the relevant planning documents.

Despite this lengthy recitation of areas where Charlotte-Mecklenburg can expand its multimodal thinking, the city has already done a good job. The complexity of this issue and its linkage to other planning issues, especially land use, is readily apparent and cannot be avoided. Principle 14 discusses in some detail the needed integration of transportation and land use.

Analytical Adequacy:

With transit, bikeway, greenway, and sidewalk initiatives all grounded in recent plans, Charlotte-Mecklenburg should more consciously present its programs, benchmarks, and funding analysis in multimodal categories. This will facilitate comparison among its investment in various modes and will help make choices in the future.

The 2025 Transit/Land Use Plan did not, in its analysis, examine transit benefits to lower- income groups. While the Charlotte-Mecklenburg Social Services Agency conducted some analysis of need and identified important origins and destinations, this was never coupled with the transit work. In the next phase of transit studies, each corridor will be individually analyzed and, as required by FTA's New Starts criteria, benefits to low-income groups will be identified. It is important, however, that the city maintain an overall perspective on how the entire proposed transit system relates to this ridership group. Some inter-agency group must be tasked with maintaining the transit system's comprehensive overview as its implementation proceeds.

The current four-step travel demand model used by CDOT to project transit ridership is insensitive to many important dimensions of mode choice. This limitation is typical of most standard four-step models, which are primarily designed to address highway mobility needs. State-of-the-art practice now includes numerous model tweaks to help better capture the effects on transit ridership of density, walking distances, and mixed-use. CDOT should make upgrading its model a priority.

Level of Implementation:

Charlotte-Mecklenburg has established a good track record of planning for balanced, multimodal transportation. Its implementation efforts have increased significantly over the past five years and it stands on the threshold of a quantum leap into a comprehensive multimodal system. Although still new, the Metropolitan Transit Commission (MTC) has already done much positive coordinating work.

The towns lag Charlotte-Mecklenburg in their readiness and capacity for implementation. While the MTC will provide an institutional umbrella for the towns, it will still be important for MTC staff to assist the towns in developing

implementation plans and in executing them.

Institutional Readiness:

The implementation of a balanced, multimodal system will involve extensive public education efforts. The Corporate Communication arms of the city and county will need to participate with the MTC in developing a sustained program to educate and inform the public about such things as new bus systems, bikeways and greenways.

Bike advocacy needs an institutional home. The current bike plan recommends the creation of a bike coordinator's position, who would be a voting member of the MPO's Technical Coordinating Committee (TCC). This is an appropriate and necessary institutional step.

Because of its extensive work in CWAC, the city is well-informed and well-connected to grassroots groups. As transit planning and implementation moves forward, Charlotte-Mecklenburg and the MTC will need to consciously create networks, coalitions and multilingual outreach channels to those transit stakeholders who are typically under-represented in the conventional public participation process
Forging closer coordination between transportation and land use planners is still needed. Much of this will likely come through the work of these two groups for the new Metropolitan Transit Commission (MTC), and the new Transit Department may be the primary center of such interactions. Nevertheless, there are numerous other transportation-land use coordination issues outside the transit corridors that require a more sustained level of interaction between these two groups.

While the complexity of the transportation issues will set up many future institutional challenges, Charlotte-Mecklenburg's success in establishing the MTC and getting buy-in from the towns for the 2025 Land Use-Transit Plan is an important achievement.

Principle 10: Minimizing Costs by Maximizing Existing Infrastructure through Coordinated Land Use and Infrastructure Planning

Strengths:

1. *Unified countywide providers for sewer and water, schools and roads.*
2. *Sewer and water enterprise fund with sufficient revenues.*

Gaps:

1. *Provision of services largely reacts to demands of new development.*
2. *City does not take full advantage of opportunity to establish long-term infrastructure plan for entire Extra-Territorial Jurisdiction or Sphere of Influence.*

Conceptual Completeness and Analytical Adequacy:

This principle secures the efficient and cost effective utilization of infrastructure. In this section we focus on infrastructure primarily in terms of sewer and water, schools, and roads.

Sewer and Water. Charlotte-Mecklenburg is very fortunate to have a unified agency that delivers sewer and water to all jurisdictions within Charlotte-Mecklenburg – The Charlotte-Mecklenburg Utilities Department (CMUD). CMUD is a department of the City of Charlotte and reports to its City Manager. It will soon become a region-serving entity, providing service southward to Union County and South Carolina and eastward to Cabarrus County.

CMUD financing is through an enterprise fund and it maintains a healthy surplus. Unlike counterparts in other metropolitan areas, CMUD provides retail service everywhere and does not act as a wholesaler. CMUD operates and maintains all of its delivery systems. The various agreements between municipalities call for rate equalization; there are no "inside" versus "outside" rates. Similarly, extension policies are the same everywhere; the city has to approve sewer use ordinances. Within their corporate boundaries, extensions have to be approved by the towns. CMUD has an advisory board that includes a representative for the six towns and other appointments by the city and county; they do not set rates but do review extension policies. CMUD's position is that land use is the prerogative of local planners to whom CMUD responds.

There are no system constraints on expansion of sewer service. Water supply, on the other hand, depends on withdrawals from the Catawba River. Federal permitting will ultimately limit withdrawals, since the Catawba is also a source of electrical power. CMUD sees this leading ultimately to requirements for water conservation. Heavy demand for watering the extensive lawn areas in business parks and in subdivisions is one such conservation issue.

Differentiated rates and differentiated extension policies within Charlotte-Mecklenburg could encourage infill and discourage undesired peripheral spread; limiting the size of pipes would produce only certain levels of development. These are some examples of the potential of sewer and water as a Smart Growth tool. Of course, the unintended consequences

of such actions, such as the proliferation of state-approved package treatment plants or in-ground septic and well systems, must be carefully weighed and addressed.

Schools. Like CMUD, the School Board considers that its role is to accommodate growth wherever it occurs. Cost recovery is not, of course, a goal of the school system. The notion of managing overall demand is quite foreign to the Board's mindset and, therefore, to the planning analysis it conducts. A search for efficiencies, evidenced in the School's Master Plan of 1998, is driven by decisions on siting, timing of land acquisition, trailers versus renovation versus new facilities and so forth.

The role of schools in the community was not clear in the material reviewed. Because of Charlotte-Mecklenburg's extensive busing program, the potential for schools to become neighborhood focal points for children seems diminished.

The School Master Plan talks of the Joint Use Task Force for schools created in 1995. It also recommends joint use arrangements with the parks. In many communities, school playing fields and even their indoor facilities are a key part of the communities' recreational facilities with formal use and maintenance agreements between the School Board and Parks and Recreation Departments. In Charlotte-Mecklenburg this appears to be true of many elementary and middle schools.

Roads. Matching the pace of development and the timing and sequencing of road system infrastructure is a key Smart Growth concept. Traditionally, Charlotte-Mecklenburg and CDOT seem not to have regarded preservation of transportation capacity as a land use function, subject to inter-departmental collaboration and management. Lately, however, Charlotte-Mecklenburg has sought to integrate land use and transportation at the level of studies and plans, but has not yet moved to implement these through regulations or incentives on the ground.

One specific need is analysis of the infrastructure implications of the New Urbanism development model that the three northern towns have adopted. This model envisions a network of discrete neighborhood cells and presupposes some commercial, employment and institutional uses within each neighborhood cell that make up the overall town landscape. Each cell, if walkable and of moderate density, will have between 500 to 1,000 homes (1,250 to 2,500 people). There are, consequently, natural limits on how much commercial, employment and civic uses can be decentralized without sacrificing important economies of agglomeration and scale. Providing for larger employment concentrations, especially for offices, is absent from the land use plans of these towns. Such provisions are essential for balanced development as well as for the towns' future economic health.

Level of Implementation:

Some techniques to encourage efficient use of infrastructure are employed by Charlotte-Mecklenburg. In place are extensive congestion management measures (such as coordinated signalization, reversible lanes, signal preemption by transit, staggered work hours, etc.), The application of Extra-Territorial Jurisdiction allows towns (and potentially the city) to plan more efficiently their future expansion. A Joint Use Task Force exists for schools and other public facilities and infrastructure to

encourage joint planning and use of capital facilities.

Because costly infrastructure systems such as roads and schools are becoming overwhelmed by rapid growth and may increasingly lag behind projected growth levels, the opportunity to use roads and school capacity to meter and shape future growth may have passed. If and when using infrastructure to direct the location and pace of growth becomes more desirable and politically acceptable, the provision of sewer and water will be the single most powerful tool that Charlotte-Mecklenburg has to promote Smart Growth. Using sewer and water for these ends, however, would represent a dramatic shift in the way Charlotte-Mecklenburg does business. Nevertheless, the request by the Town of Davidson to delay a trunk sewer in its rural eastern sphere of influence is a harbinger of things to come.

Institutional Readiness:

The Planning Liaison Committee (which includes representatives from Charlotte-Mecklenburg, the towns and schools), the Joint Use Task Force, and the Charlotte-Mecklenburg Cabinets organized around the city's Focus Area Plans are all examples of informal, institutional settings to address infrastructure and service delivery efficiencies. Because the major infrastructure systems (roads, schools, and sewer and water) are provided to the six towns by the state, city, or county, there is some inherent integration of service delivery. The authority of the towns to influence their delivery (speed them up or slow them down, for example) was unclear. Once funded and designed, for example, the implementation of sewer service seems inexorable.

Principle 11: Timely Provision and Fair Funding of New Infrastructure

Strengths:

1. *Still healthy assessable tax base in city and county.*

Gaps:

1. *Better coordination of timing infrastructure installation and delivery of services with expected long-term land use changes at countywide and district plan levels.*
2. *Marginal cost analysis of new growth versus revitalization of older areas to help establish planning priorities.*

Conceptual Completeness and Analytical Adequacy:

The network of new roads in Charlotte-Mecklenburg has some initial capacity to absorb traffic from development. Existing schools can add trailers or redistrict to handle new school children. Public sewer and water, however, are either in place or not and thus more directly determine density than roads and schools. In Charlotte-Mecklenburg, the provision and timing of sewer and water has historically been demand-driven, with a liberal extension policy. If a single family residence is within 1,000 feet of a sewer line, service is extended to it free of charge. Commercial development pays 50% of line extensions. Developers can build a line if it is within the five-year plan and the city will reimburse them. If within the 10-Year Needs Plan, developers can build extensions and be reimbursed proportionately.

This liberal sewer and water policy permits development to occur before roads and schools are in place to properly accommodate it. The concurrent or coordinated provision of infrastructure is very difficult when the pace of growth is very rapid, as in Charlotte-Mecklenburg. There will inevitably be lags. Planning for such coordination is often a function of the Land Use Master Plan. In Charlotte-Mecklenburg's case, however, the Master Plan is a policy document that urges coordination but does not specify or suggest how. Area Plans also tend to not specify an integrated schedule for infrastructure. [The Conditional Development (CD) zoning process does, to a limited extent, address phasing and adequacy of infrastructure. Nevertheless, the CD approval process is too unpredictable and too ambiguous in its criteria for judging adequacy to serve as a guide to a more consistent approach to coordinating land use change and infrastructure provision.]

Level of Implementation:

An Adequate Public Facilities Ordinance (APFO) is one way that many local governments manage the timing and sequencing of infrastructure. Such a system usually includes a development tracking system and a set of benchmarks for determining when and where to ration growth.

Given that such a system is not likely to be adopted by the city or the county, Smart Growth will need to find other ways to accomplish better coordination of infrastructure with development. Having a development tracking system would at least make potential infrastructure delivery problems clearer and provide

more quantitative support for budget allocation requests. The towns, in contrast, may be more receptive to APFO possibilities. In investigating these possibilities, the towns need to recognize how APFOs need to be structured to accommodate orderly growth, not merely drive it into other jurisdictions.

An important local/state issue that affects using public sewer and water as a tool for timing and sequencing is premature development served by package treatment plants that are readily authorized and permitted by the State Health Department. Better local/state coordination on this issue is necessary if locally adopted plans that withhold public service from specific areas are not to be undermined.

The 2025 Land Use-Transit Plan contains an explicit program for the timing of its implementation. However, the orderly center-to-periphery strategy of the 2025 Plan may quickly be outstripped by the rapid rate of growth in the outer areas of the county and in areas beyond the boundaries of Charlotte-Mecklenburg.

All pending corridor studies should include an alternative strategy that works from the outer edges inward. The purpose of such a strategy would be to at least reserve right-of-way, station sites and institute Transit District zoning in anticipation of future transit. This is especially feasible for the Bus Rapid Transit (BRT) alternatives that are proposed for three of the five transit corridors. Unlike rail, BRT does not need a fully continuous system to operate and could, if needed, begin its implementation by installing facilities in the most rapidly growing areas rather than the established inner city communities.

One means to foster more growth in the transit corridors might be to install or upgrade the infrastructure in advance of the station area developments it is to support. Being 'ready to go" could be combined with other incentives such as differential utility rates to make these sites more attractive than other choices.

Institutional Readiness:

Many tools used elsewhere in the United States to manage growth are not used in Charlotte-Mecklenburg, nor does there yet seem to be much political support for their implementation. Although such reluctance is understandable given present attitudes, there seems to be sufficient legal authority for many of the measures listed in Table 2.[9]

Should the institutional readiness to use such powers change, the city, county and the towns will need to carefully tailor such measures to local realities.

---

[9] *Many comments the team received about such measures reflect a conservative approach to authority issues that is shared by many planners. Most planners in NC seem overly conservative about authority issues. NCGS § 160A-4, entitled "Broad construction", states that: "It is the policy of the General Assembly that the cities of this State should have adequate authority to execute the powers, duties, privileges, and immunities conferred upon them by law. To this end, the provisions of this Chapter and of city charters shall be broadly construed and grants of power shall be construed to include any additional and supplementary powers that are reasonably necessary or expedient to carry them into execution and effect: Provided, that the exercise of such additional or supplementary powers shall not be contrary to State or federal law or to the public policy of this State." When Charlotte's stormwater fees were challenged and upheld by the NC Supreme Court, the court retreated from Dillon's Rule and cited a statute that could be read as a repeal of Dillon's Rule. Homebuilders Association of Charlotte v. City of Charlotte, 336 N.C. 37, 442 S.E.2d 45 (1994). Accordingly, impact fees, for example, might be permissible as an adjunct of existing zoning and subdivision permitting authority.*

CDOT is very prepared for dealing with highway planning and the technical aspects of transit planning. The desirability of a larger, more unified MPO has already been urged. Better long-term coordination of other forms of infrastructure is needed and is discussed under Principle 13.

D. Development Process

Principle 12: Reasonable, Predictable and Efficient Plan Review Process

Strengths:

1. *Unified city and county zoning and subdivision codes.*
2. *Northern towns use graphics to illustrate desired results of regulations.*
3. *Tree ordinance as a good example of how to illustrate/clarify technical requirements.*
4. *Extra-Territorial Jurisdiction powers helps control inappropriate land development outside town boundaries.*

Gaps:

1. *Most codes are not user-friendly; need to be clearer in intent and detail, better organized regarding procedures.*
2. *Developers need to know six different town codes and C-M codes to work throughout the county.*
3. *Too few by-right opportunities for many desired policy goals such as more mixed use.*
4. *Too many obstacles and surprises in conditional approval process. Process is unnecessarily contentious and unpredictable. Minor issues cannot be resolved administratively.*

Conceptual Completeness and Analytical Adequacy:

Smart Growth requires an efficient, easy-to-understand development review and approval process that has predictable outcomes when one conforms to all requirements and guidelines.

The basis for assessing the efficiency of plan review policies is an examination of the applicable zoning and subdivision regulations (referred to collectively here as "development codes") as well in interviewing plan review personnel, applicants and neighborhood stakeholders involved in the approval process.

Although the development codes themselves contain a good deal of specificity, two key traits of the current plan review process stand out as sources of inefficiencies and potential delay as well as resulting in development approval disputes.

First, discretionary review processes permit the jurisdiction to impose a wide range of conditions, which relate to the approval criteria. Because the criteria are general, the specific conditions are not known in advance, and are typically negotiated between the jurisdiction, the developer and the affected neighborhoods. Second, the Charlotte, Mecklenburg County, Pineville, Matthews and Mint Hill codes lack graphic details that illustrate how development would appear if built to the prescribed standards. Better graphics and pictures would improve accessibility and understanding of the codes by the general public as well as the regulated community.

There are examples of more user-friendly codes. The northern cities have added considerable graphic detail to their codes, although there is room for improvement. Charlotte's tree preservation ordinance also does a good job of graphically

illustrating and simplifying a highly technical subject.

Level of Implementation:

There are few, if any, examples of preferential review processes in any of the codes within the county. Most approval processes involve a high degree of discretion as well as public participation. The city does well in keeping neighbors notified of land use changes and providing an opportunity for public input. However, the current operation of the development review process creates a high degree of unpredictability. It also produces outcomes that are inconsistent with the city's policies to produce interconnected, mixed-use development. For example, large buffers and barriers to street connections between non-residential and residential land uses are often requested by neighborhoods, but are entirely inconsistent with maintaining a functional, pedestrian orientation within and between neighborhoods.

Charlotte's open space requirements are somewhat confusing. The "minimum open space" requirements for the base zoning districts appear to refer to yards and other undisturbed areas, rather than to common open space. This distinction needs to be clarified. It is also unclear why such a requirement is needed, given the other setback requirements for the district. There are adequate requirements for urban open space in the mixed-use districts, and the cluster provisions have somewhat detailed provisions for common open space. Nevertheless, better guidance is needed about the provisions of passive versus active open space, maintenance, and connectivity to the overall development.

None of the ordinances clearly spell out the substantive and procedural provisions of the ordinance. Further, submittal requirements are interspersed throughout the ordinance, adding to the length of the ordinance and creating confusion. The ordinances would be improved with chapters devoted specifically to substantive standards, with definitions and submittal requirements placed in an Appendix.

There are few by right provisions that permit and encourage innovative development patterns. This lack tends to discourage the cluster and mixed-use, compact developments (such as transit-oriented development) that the city wishes. Clearly defined standards, with graphics, provide advance notice to the surrounding community as to what is permitted on the property and reduces the need for public hearings and discretionary processes.

Interviewees have reported problems with the application of the ordinance to specific situations such as changes in the use of existing buildings. These can be easily corrected with amendments to the ordinances. However, if not corrected, they can discourage investment in infill areas and may foster disinvestment in areas where the city would like to encourage growth.

There are some excellent examples of creative guidelines in place throughout the county, such as the innovative design guidelines for the Uptown Mixed Use District and the northern tier communities as well as the Phillips Place development in Southpark.

Institutional Readiness:

The city, the county and the towns all have a great deal of legal authority to regulate development, more than they seem to understand. The issue from a Smart

Growth perspective is to use this authority creatively to secure a better built environment without avoidable hurdles or confusion that discourages innovation or establishes a planning culture that drives growth out of Charlotte-Mecklenburg.

The city and county have moved toward uniformity by adopting the same set of development codes. However, each of the other jurisdictions has a completely separate code, with different substantive standards, different zoning districts, and different procedural requirements. A developer must know all eight codes in order to compete effectively in the county. Further, this process invites "forum-shopping" by developers. A unified, countywide approach – such as that being undertaken by the jurisdictions in Cabarrus County - would enhance certainty and predictability. The city and county could provide a leadership role in encouraging each local government to adopt similar ordinances.

One Smart Growth measure would be the consolidation of the zoning administration and enforcement and planning functions. Presently, the former resides with the county. The latter resides with the city. The city (is that what managerial means?) and planning staffs need greater control over the functions of the Zoning Administrator. The Zoning Administrator needs to be actively apprised of long-range planning issues.

There is a need for more administrative-level review for minor issues that are now sent to the City Board of Adjustment as well as for mixed-use development options that the jurisdictions would like to incentivize. Many of these minor issues can be addressed by establishing waivers and exceptions in the ordinance. Another advance would be to allow approval through delegated authority of deviations from ordinance standards through administrative review.

Measures such as these would not only make interagency coordination more efficient but would also be an important "customer service" initiative. Although it would not eliminate the need for review and approval, the process could be much less burdensome for applicants. Resolving the issues raised under this principle will not be a simple thing. The call for clearer, easier-to-understand regulations and for more efficient processes does have to accommodate the need for flexibility and the inherent complexity of creating the best development solutions for specific locations, especially significant mixed-use projects. Much experimentation and refinement should therefore be anticipated in solving this aspect of the Smart Growth puzzle.

Principle 13--Supporting Fiscal Policies

The team did not review key documents concerning current fiscal policy or practices such as the Capital Improvement Program or the Capital Needs Assessment process. No strengths or gaps are therefore presented. However, this audit would not be complete without some references to the fiscal needs and impacts of a Smart Growth strategy.

Conceptual Completeness

The discussion of infrastructure needs in Principles 10 and 11 focused on how Smart Growth principles could lead to more efficient systems and reduce costs. Costs, even when reduced, require predictable, timely and adequate funding.

Predictable long-term needs and a firmer sense of the sequence of implementation can help create a more efficient system for infrastructure and service funding. Because the city knows it will eventually annex its designated sphere of influence, growing from 250 square miles to 350 square miles, the city and county should develop a strategic plan that would determine the ultimate need for infrastructure and services and what economies of scale may be possible. If combined with the timing mechanisms discussed earlier, the funding of this more cost-effective system could be planned in a more orderly way. This would contrast sharply with the very incremental, demand-driven responses that are the basis of much current infrastructure planning. (This is an issue of Institutional Readiness as well as Conceptual Completeness.)

Another strategy for addressing the fiscal consequences of growth would be for the Planning Commission and CDOT to collaborate on modeling future land use and transportation scenarios, including a build

out exercise. By varying transportation and infrastructure strategies as well as land use patterns and timing, such an exercise can test a range of timing and funding alternatives.

Charlotte-Mecklenburg does have a Capital Needs Assessment (CNA) process with a ten-year horizon. This enables it to determine funding needs beyond the typical CIP that charts spending over a six-year period. An even more extended time frame beyond ten years may be feasible if other Smart Growth measures are operational. (There are examples of this in current practice. CDOT for example already projects road needs for the next twenty years.)

The effectiveness of such a very extended capital needs planning horizon depends on how well those assembling the information can determine when new schools, roads, water and sewer, libraries, fire and police stations and recreation facilities will be needed to meet the needs of a specific subarea. This requires a more sustained tracking of land conversion and development projects in the approval process than now occurs.

The funding needs and sequencing of the outer years of such an extended capital needs forecasting must be regarded as somewhat tentative. Nevertheless, such an extended horizon enables all involved with planning and provision of services to see when agency funding demands may rise or fall and when multiple peaks in expected requests may coincide and create a potential funding crisis. The longer-horizon study can also track expected revenue growth and indicate when and

how much a jurisdiction's bond issuing abilities may be called on to meet expected needs.

Analytical Adequacy

Because the local property base is one of the most important sources of local government revenues, it is crucial that this base be well balanced and generally increasing in value. One role of the build-out and tracking scenarios described elsewhere is to provide insights into the potential impacts of existing land use plans on the future revenue base and fiscal health of the city, county and the six towns. While the city appears to have a good ratio of jobs to households, some of the towns invite concern. Their non-residential base is often heavily weighted toward commercial uses rather than industrial or office employment. In Cornelius, for example, non-commercial employment land is little provided for, a source of concern when comparing the services that will be needed by its build out population of more than 50,000.

At the same time as it has been encouraging infill and redevelopment of its older areas, Charlotte-Mecklenburg has traditionally accepted and facilitated new growth everywhere. From a cost-effectiveness viewpoint, Charlotte-Mecklenburg needs to document the marginal costs of this new growth versus infill development. A fiscal impact analysis of the marginal cost, case-study type[10] will give Charlotte-Mecklenburg a better understanding of its policy choices.

As part of this analysis, the capacity and condition of existing infrastructure needs to be documented. Smart Growth thinking assumes that it is cheaper (and also better for other reasons) to keep building where investments in infrastructure have already been implemented, particularly if these are underutilized. This assumption always needs to be tested, however.[11] In older, inner-city areas, existing infrastructure may be in poor condition. Its upgrading may be very costly, even costlier than new infrastructure. Such an analysis of the condition and capacity of existing and planned infrastructure is not evident in the material we reviewed. To provide those making Smart Growth tradeoffs and policy choices with adequate knowledge, such an analysis of the ability of existing infrastructure to absorb additional users should be a priority.

Transportation planning is perhaps the most advanced example of fiscal planning for future needs in Charlotte-Mecklenburg. In the 2015 Transportation Plan (1995), C-M identified a shortfall of $350 million to meet its 20-year highway improvement needs. The current 20-year shortfall estimate for Charlotte-Mecklenburg is $450 million.

Level of Implementation

Fiscal planning for individual agencies could benefit from a more predictable

[10] *The marginal "cost" approach looks at the actual distribution of many services and infrastructure and assesses the marginal cost of additional services or infrastructure. The "per capita" approach (while quicker and cheaper to execute) divides services and infrastructure by current population to yield an average, per capita cost. The latter approach builds in significant cost distortions in rapidly growing communities.*

[11] *Such analysis can sometimes yields counter-intuitive results. For example, conventional wisdom is that new residential development imposes high costs for new schools and is, therefore, a target for impact fees. However, in some larger, older jurisdictions with existing, attractive neighborhoods that are seeing a generational turnover, most of the new school children may be coming from this source, rather than from new development. Moreover, if a fair portion of the new development is higher end residential with older children, school impacts may be smaller than imagined.*

sense of the demands that will be placed on them as Charlotte-Mecklenburg grows. Unlike the self-sufficient sewer and water fund, for example, the School Board must continually lobby for its budget needs, which are funded by a designated portion of the property tax, and net revenue bonds as in the case of water and sewer. (The School Master Plan, in a minor appendix note on impact fees and exactions, does show some interest in alternative revenue sources.) The extended capital needs process could diminish this year-to-year uncertainty.

Charlotte Mecklenburg, like other local jurisdictions, depends heavily on the State to fund and implement major highway improvements. A most serious concern, consequently, is the recent changes in State DOT policies and procedures for funding allocation that threaten to delay crucial road projects such as completion of the I-485 outerbelt or the widening of I-77.

One response by local governments to shrinking Federal and State dollars has been to replace them with local dollars and to seek new revenue sources. Charlotte has been doing this, of course, but has yet to consider asking new growth to bear a fair share of infrastructure costs or to tie development approvals to the timing and sequencing of infrastructure.

A sales tax increase has been proposed to fund the shortfall in the road improvement program. Local citizens seem willing to pay more for better services or accelerated implementation when the purpose is clear. This was seen in passage of the sales tax referendum to fund transit. Although this tactic should not be overused, Charlotte-Mecklenburg may wish to consider such dedicated funding for other widely supported measures.

To the degree that the timely provision of infrastructure is simply a matter of enough money, where jurisdictions have insufficient capacity to fund infrastructure for new growth, they often impose impact fees or an excise tax on development to pay its "fair share." Charlotte-Mecklenburg does not have such fees. If it chooses not to impose them, some other mechanisms will need to be built into the Smart Growth initiative to achieve the same ends.

Institutional Readiness

The team offers no commentary on Institutional Readiness.

Principle 14--Ability to Integrate Land Use, Transportation and Infrastructure Decisions

Strengths:

1. *Main policy documents--2015 Plan, 2015 Transportation Plan, 2025 Land Use-Transit Plan--establish need to coordinate policies.*
2. *General Development Policies are being revised to better promote this integration. District Plan system provides the vehicle for detailed implementation.*
3. *New Metropolitan Transit Commission will be prime vehicle for institutionalizing joint land use-transit decision making.*

Gaps:

1. *Zoning needs to be amended to require or encourage more transit-friendly developments; e.g., through 2025 plan proposals for Transit District zoning at stations.*
2. *City and county lack sufficient entrepreneurial powers and financial resources to play a more effective proactive role in securing fulfillment of the Centers and Corridors and other 'big picture" plans.*
3. *Staff resources will be stretched beyond current capacity by demands of integrated land-use transit planning and other Smart Growth needs.*

Conceptual Completeness and Analytical Adequacy

The general need for integrating land use and transit decisions is clear in many of Charlotte-Mecklenburg's key planning documents. The complex practical implications of this principle still need clarification.

Charlotte needs to be certain that its proposed $1 billion transit investments will work. Many pieces of this land use-transit puzzle are in place, but some of the more difficult, more interventionist and more powerful land use measures available to ensure transit's viability are yet to be taken under consideration. Institution of Transit District (TD) zoning is one important step. Other potential measures include changes to site development requirements such as reduced parking standards in transit-rich areas like Center City and establishing maximum parking provisions.

These strategies will likely go hand-in-hand with the city's venturing into the business of producing consolidated, public parking structures. Employer cash-out programs (for employees who choose not to use their cars and thus free-up parking spaces that the developer usually subsidizes) are another example of transit-friendly policies the city could initiate.

The arguments for greater street connectivity and sidewalks made under Principle 8 are directly relevant to multimodal land use-transportation planning and should be made part of the working vocabulary of all parties involved in implementation of the 2025 plan.

An important need is to coordinate more closely the working out of land use-transit issues in concert with those land use issues generated by the impending completion of the I-485 outerbelt. The outerbelt issues require a balanced, multimodal perspective. The region

should exploit both its mass transit corridors and the outerbelt, each $1 billion investments, to better rationalize patterns of development. The auto has and will continue to play a dominant mobility role in Charlotte-Mecklenburg. There is simply no way to divorce auto-oriented patterns of growth from a regional smart growth program. It is probably a false (and certainly an unhelpful) dichotomy to label growth either "transit-oriented" or "auto-oriented." This unnecessarily polarizes discussions about development choices and creates rigid mindsets rather than a basis for solutions.

It makes sense to target office development, some regional shopping, major regional entertainment draws, and multi-family housing to transit station areas. A complementary strategy would be to target auto-oriented development like big boxes, warehouses, distribution centers, shopping malls, some recreational uses, etc. to catchments around selected beltway interchanges. Indeed, the market will likely work in these directions. The planning challenge is to make sure the market can follow this path smoothly, absent major externalities or failures. Smart Growth planning should take planning for the 3-4 mile impact zones of beltway interchanges as seriously as the half-mile impact zones for transit stations. Land supply/demand analysis for example can be done to quantify the physical outcomes of various interchange area scenarios and to test their traffic generation impacts.

Where the outerbelt and radial transitways intersect in the North, University and Airport corridors are the appropriate locations for Charlotte-Mecklenburg's Future Edge Cities. The outerbelt studies do not recognize this as a unique opportunity.

Level of Implementation

Much of the public discussion on transit has centered on residential densification. In fact, employment densification, particularly for offices, is much more central to transit's success.

The widespread availability of office land in business parks and the usual low intensity of development within them means that generating office nodes at transit stations poses a difficult challenge in the marketplace. The 2025 Land Use - Transit Plan lists a number of useful incentives but it is still an open question whether incentives alone will be enough. Also, more thinking needs to be done about the implications of the 2025 transit system on land planning outside the corridors. The possibility, for example, of limiting the scale and critical mass of office development in business parks should be explored. About one quarter of the existing business park is undeveloped (about 4,000 out of 12,000 acres). In large business parks, where half or more of the land is still undeveloped, transit-friendly site planning should be required if these areas will be near feeder bus service tied directly to the transit corridors.

Research shows that those cities that have succeeded in integrating transit and land use have had entrepreneurial transit agencies that have actively engaged the private sector in joint ventures. Joint venture arrangements may be revenue or cost-sharing ones, but it is important that the public agencies and MTC view such initiatives as more than a means of revenue raising for the transit authority. Their benefits go to increased transit ridership, a better living environment and broader community goals. The recent purchase by the Town of Matthews of the vacant shopping center next to the rail line is a very positive, proactive step in keeping with this line of thinking.

Granting the authority to be entrepreneurial must, therefore, be part of the institutional design of the Transit Commission and may require additional modifications to the language governing the usage of the half-cent sales tax.

Institutional Readiness

The integration of transportation and land use planning that is crucial to fulfilling the Centers and Corridors Vision will require significant interagency cooperation and coordination. The Charlotte Department of Transportation (CDOT), de facto, performs several key strategic planning functions, such as population and employment projections and allocations. An important Smart Growth priority should be closer interaction between Planning Commission and CDOT staff than now exists. Institutionalizing such interaction, perhaps through their roles in the Metropolitan Transit Commission (MTC), may be the easiest way to establish this relationship. Recommended integrated planning tools such as a solid GIS database and a tracking system can make these tasks of integrating land use, transportation and infrastructure easier.

Because five towns control the land at the outer ends of three of the transit corridors, they need to figure more prominently in the city's thinking, planning and institutional structures. While the Metropolitan Transit Commission (MTC) may provide an adequate implementation umbrella for the towns, the Planning Commission must still find ways to become a more effective partner. The Planning Commission's helping the towns to use tools such as land banking can be one kind of partnership. The corridor EIS studies are appropriate vehicles for review and suggested upgrading of the land use plans of the five towns that will receive rapid transit service.

The desire to integrate land use and transportation planning raises many issues regarding how projects get built and the quality of these projects. Unlike most other major metropolitan planning agencies, the Charlotte-Mecklenburg Planning Commission staff is only peripherally involved in the review of by-right development.

Charlotte-Mecklenburg's ordinances, overall, lack adequate standards that talk to design quality. To the degree that everyday development is not held to high standards and the Planning Commission is shielded from influencing these outcomes, such a role gravitates to other forums. Consequently the Council, Commissioners and Board of Appeals spend too much time over details like buffers, fencing, driveway access, lighting and so forth.

The upgrading of development standards and the better coordination of plan review functions are closely related. The Planning Commission staff should not preempt the review and approval functions of other departments, especially regarding technical requirements. Nevertheless, the big picture responsibilities of the Planning Commission staff make it the most logical candidate for an oversight role that will guarantee that all aspects of a development proposal work together, that various individual agency comments do not contradict each other and that the proposal is consistent with the planning priorities of the relevant District Plan and local area plan.

The city's Focus Areas publication points with pride to maintaining a freeze on the number of overall government staff and a shift from staff functions to line functions, such as police and fire. Our observation and experience suggests, however, that

rapid growth and Charlotte-Mecklenburg's desire to stay ahead of the curve and maintain quality of life requires that its planning capacities be strengthened and enlarged rather than held constant. This observation also applies to CDOT and the MTC and may apply to other departments involved in the review and implementation of Smart Growth.

V. Conclusions and Recommendations

As this Smart Growth audit shows, Charlotte-Mecklenburg's planning goals and planning practices have evolved and expanded steadily in scope and ambition. The basic policies of the 2015 Plan, the further articulation of the Centers and Corridors vision, the swift follow-up in the 2025 Land Use-Transit Plan and other recent initiatives such as the new Greenway Plan are significant stages in this evolution.

This planning is not merely a political exercise. The detailed hands-on achievements in the CWAC area, in the Downtown and in many other neighborhoods are proof that Charlotte-Mecklenburg knows how to turn planning visions into tangible community benefits. Continued economic development drives regional growth but also brings with it many of the problems cited in this audit. This economic development will also provide the resources for resolving them.

A Smart Growth consensus will not emerge overnight. Charlotte-Mecklenburg cannot wait until all the pieces of the Smart Growth puzzle are in place to move forward. The audit team consequently offers six recommendations that are immediate steps Charlotte-Mecklenburg can take while working out the more specific details of the Smart Growth strategy it will choose to follow.

1. Streamline and Improve Development Codes and Review Process
The first recommendation is that all jurisdictions improve the content and clarity of their development codes and streamline their development review processes.

These actions will promote several Smart Growth goals and will make it easier to fulfill some of the basic policies of documents
such as the 2015 Plan. For example, amending zoning to create more by-right mixed-use and medium and high density residential districts will better serve the balanced growth and housing goals of the 2015 Plan and the General Development Policies. Clustering, clearer open space requirements and adjustments to street and parking standards should also be part of this code renewal work. Transit District zoning is also needed.

More by-right mixed uses and streamlining will improve the overall planning culture, remove developer inhibitions to tackle Smart Growth projects and lessen the number of contentious public disputes by establishing more predictable outcomes based on clearer expectations.

2. Establish Proactive Policies and Powers to Implement Centers and Corridors
Charlotte-Mecklenburg needs to adopt powers and procedures that enable it to proactively secure the goals of such key policies as the Centers and Corridors vision and the 2025 Land Use-Transit Plan.

Especially important will be the authority and adequate financial resources to purchase land and establish development entities for key sites within the transit corridors. Another strategy would be Purchase of Development Rights for permanent preservation or for eventual 'resale" to qualifying projects such as mixed-use revitalization. These changes would also gain maximum benefits of the changes to the codes such as creation of Transit District zoning.

It is ironic that a community with a very entrepreneurial climate does not give its public agencies much leeway to act likewise. The full value of the public /private partnership concept as a land use and economic development tool will not advance much if the public partner is unable to act forcefully and decisively.

Its examples of existing development corporations and its many community planning achievements show that Charlotte-Mecklenburg agencies are well suited for action based on negotiation and definition of mutual benefits. Most of these current efforts focus on the CWAC area. Such activities need to be applied countywide for new development as well as revitalization. Adequate funding is crucial.

3. Plan Ahead for the Needs of the Future
The City of Charlotte will be the dominant jurisdiction within Mecklenburg County, but is not now fully planning for its eventual expansion.

Instead of today's incremental, reactive approaches, the city should anticipate the build-out status of the entire 350 square miles it will become. It can then plan and implement in a more orderly way for efficient infrastructure, delivery of services, acquisition of sites for schools and other facilities, and a well-linked open space network.

4. Establish a More Thorough Planning Database and Development Tracking System
The Smart Growth audit has repeatedly revealed the need for better, more detailed information upon which to make planning decisions. Creation of such a database and tracking system is essential if such goals as Principle 14 --land use, transportation and infrastructure integration--are to be fully implemented.

The uses of a countywide GIS land use data base and tracking system will improve the effectiveness of planning staff in a variety of contexts ranging from preparation of major zoning cases to the testing of the impacts of current or potential long term growth scenarios. There will be fewer surprises and more objective benchmarks to judge how well planning priorities at the countywide as well as the district and area plan scales are being met.

5. Conduct a Fiscal Impact Analysis of the Outcome of Current Plans and Policies.
A fiscal impact analysis of the full realization of the current comprehensive planning policies should begin as soon as possible.

Once Charlotte-Mecklenburg becomes fully urbanized, it will likely enter a period of greater stability and equilibrium. Maintaining rather than creating a high quality of urban living will become a larger part of the civic agenda. It is not certain what are the ultimate fiscal needs to create and then sustain this urban vision, nor is it clear how these needs will be funded.

Questions to answer include what are the impacts of current plans on the future assessable base, what will be other sources of revenue and how do expected revenues compare to expected costs. Investigating the fiscal consequences of various jobs - housing balances should also be done. A fiscal impact analysis could demonstrate the need to invest in the older inner city areas by highlighting the consequences of letting them deteriorate. A fiscal impact analysis could also chart the consequences of potential significant reductions in State funding for needed roads, a shortfall that the county

may have to make up if it is to proceed with its plans intact.

Answering such questions sets the stage for a better-informed Smart Growth debate and better Smart Growth choices.

6. Develop a Unified Open Space, Environmental and Parks Strategy. Charlotte-Mecklenburg has a swiftly closing window of opportunity to establish a countywide, comprehensive network of open space and protected environmental resources. Each year that such a plan is delayed, it will be less feasible.

The provision of such a network is one of the most important means whereby the eventual urbanization of all of Charlotte-Mecklenburg can occur while still offering its citizens much of the quality of life they have come to value. The Greenway Plan, the SWIM initiatives and a new Parks and Recreation Plan can be distinct constituent elements of such a plan, but there needs to be a well-articulated overview to tie them all together. A definitive program for creating more open space in the inner areas of the city should also be part of this plan.

This comprehensive strategy must have an accountable leadership and adequate funding. It should be planned to eventually tie into a larger regional system.

These six recommendations by no means limit any future choices about a more detailed Smart Growth agenda for Charlotte-Mecklenburg. A fuller Smart Growth program will require time and much debate and resolution of different perspectives. Nevertheless, fulfilling these six recommendations will make further Smart Growth decisions easier to carry out and will deepen the understanding that lies behind these choices.

Charlotte Smart Growth Audit

APPENDIX A

Comparison of APA and NAHB Smart Growth Principles

	National Association of Home Builders					
American Planning Association	*Planning for Growth*	*Meeting Housing Needs & Choices*	*Higher Density, Mixed-use & Infill/ Revitaliz.*	*Planning & Funding Infrastructure (fair & timely)*	*Using Land More Efficiently*	*Reasonable, Predictable & Fair Plan Review Process*
Compact, efficient urban form	○	○	●		●	
Mixed-use, walkable neighborhoods		○	●			
Variety and choice in housing		●				
Balanced multi-modal transportation system				●		
Maximizing existing infrastructure				●	●	
Improving development review process						●

Overlap and reinforcement ●
Similar but important differences in emphasis ●
Potential lack of correlation ○

APPENDIX B
DOCUMENTS READ

The documents that the team reviewed as part of the Smart Growth audit are:

- *2015 Plan: Planning for the Future (1996)*
- *2015 Transportation Plan (1995)*
- *2025 Land Use-Transit Plan (1998)*
- *Advantage Carolina (1999)*
- *Bicycle Plan (Draft) (1999)*
- *Charlotte -Mecklenburg Zoning/Subdivision (1996)*
- *Charlotte Strategic Plan (1999)*
- *Cornelius Land Development Code(1998)*
- *County Priority 2000 (1999)*
- *Davidson Land Plan (1995)*
- *General Development Policies (1990)*
- *Greenways Master Plan (1999)*
- *Huntersville Zoning/Subdivision (1997)*
- *I-485 Interchange Analysis (1999)*
- *Matthews Master Plan (1997)*
- *Matthews Zoning/Subdivision*
- *Mint Hill Master Plan (1986)*
- *Mint Hill Zoning/Subdivision*
- *Our Environment, Our Future (1998?)*
- *Parks Master Plan (1989)*
- *Picture of the Future (1995)*
- *Pineville Zoning/Subdivision*
- *PLAMS (Draft) (1999)*
- *Providence Road/I485 Study (1999)*
- *Schools Master Plan (1998)*
- *State of Environment Report (1998)*
- *SWIM Plan (1999)*
- *Voices & Choices (1999)*
- *WEFA Projections (1998)*

Charlotte Smart Growth Audit

APPENDIX C
LIST OF THOSE INTERVIEWED

1. *John Barry, Director, Department of Environmental Protection*
2. *Doug Bean, Director, CMUD*
3. *Del Borgsdorf, Deputy City Manager of Charlotte*
4. *Martin Cramton, C-M Planning Commission*
5. *Debra Campbell, C-M Planning Commission*
6. *Garet Walsh, C-M Planning Commission*
7. *Owen Furuseth, Faculty Associate, Urban Institute, UNCC*
8. *Parks Helms, County Commissioner Chair*
9. *Craig Lewis, Assistant Manager, Town of Cornelius*
10. *Mayor Pat McCrory, Mayor of Charlotte*
11. *Lee Myers, MPO Chair, Mayor of Matthews*
12. *Mac McCarley, Bob Hagemann, City Attorneys*
13. *Peter Pappas, Pappas Properties*
14. *Lisa Renstrom, Sierra Club*
15. *Jim Schumacher, C-M Director of Engineering*
16. *David Smith, Attorney for Planning Commission*
17. *Wanda Towler, Asst. County Manager*
18. *R. Wayne Weston, Parks and Recreation Director*
19. *REBIC's Representatives*
    - *Anne Marie Howard, Esq. REBIC Counsel*
    - *Karla Hammer Knotts, Real Estate Broker*
    - *Roy K. Currie, Executive Vice President, Caldwell Banker*
    - *Tim Minton, CEO, Charlotte Regional Realtors Assoc.*
    - *Debbie Brown, REBIC, Public Policy Analyst*
    - *E. Jill Sladoje, Realtor*