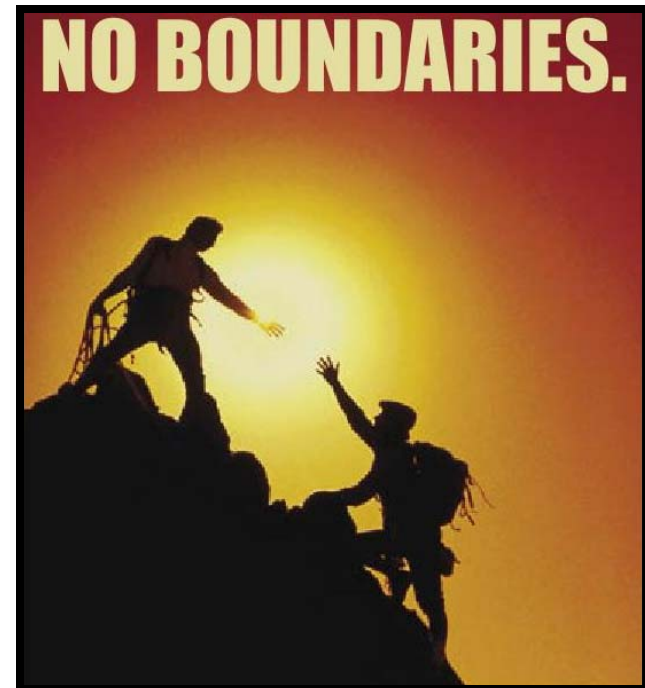

Centralina Regional Comprehensive Economic Development Strategy (CEDS)

Recommendations Report

September 23, 2004



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AngelouEconomics is pleased to present the *Recommendations Report* as part of the Centralina Comprehensive Economic Development Strategy (CEDS). This plan is a roadmap for stakeholders in the region to improve the economy. A significant number of individuals and organizations have contributed their input to the development of this plan, including the participation of a 51-member Regional CEDS Committee, public participation during the three other CEDS projects that covered areas within the Centralina Region, and more than 200 individuals who participated in focus groups or interviews. **By working together and aggressively implementing recommendations found in this plan, in addition to previous plans that have been developed and others that are being developed, the region can achieve the success that many envision.**

This report conforms to the Economic Development Administration's (EDA) CEDS guidelines and will be submitted to the EDA for their confirmation that the document meets the CEDS guidelines criteria. This plan needs to be endorsed as a regional economic development strategy by each county involved in this study and the City of Charlotte prior to submitting this plan to the EDA.



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Executive Summary

Background

The purpose of a Comprehensive Economic Development Strategy (CEDS) is to identify regional economic development strategies which communities within a region can implement collaboratively to bring about sustainable economic prosperity. The intent of the Centralina Regional CEDS Project was to develop an economic development strategy for the nine county area comprising the Centralina Council of Governments (COG), including the counties of Anson, Iredell, Rowan, Cabarrus, Lincoln, Stanly, Gaston, Mecklenburg, Union counties, and the City of Charlotte.

Three local CEDS projects have been developed recently that have included seven of the nine counties in the Centralina region. A significant amount of resources was devoted to the development of these three CEDS projects, and an objective of this study has been to build upon the work that has been done in these other CEDS. The Centralina Regional CEDS has therefore incorporated assessment information and strategies from reports of the other CEDS projects, and included several major recommendations from the local CEDS reports in the Appendix of this plan. The primary benefits in having all nine counties of the Centralina COG participate in the development of a CEDS is the establishment of an Economic Development District (EDD), an increase in the region's competitiveness for federal grants, and a decline in the region's required local level match for federal grants. Additionally, EDDs may receive annual funding that may be used for additional economic development planning and implementation of recommendations that will be developed from this planning initiative.

This 4-month project resulted in two deliverables: the *Community Assessment Report* and the *Recommendations Report*. Both reports are based on significant input from the public and private stakeholders in the region, as well as consultant research and analysis. The strategies proposed within this plan are meant to: 1) build upon strengths of the region, 2) seize opportunities in the region, and 3) proactively address challenges the region faces.

Centralina's Vision for Economic Prosperity

The Greater Charlotte region has achieved success – it has an excellent business climate, a strong diversified economy, healthy urban centers, excellent accessibility, a strong distribution network, and effective universities and community colleges. The region boasts a strong banking center, headquarters of several Fortune 500 companies, a major share of the nation's motorsports industry, and hundreds of small business success stories. This is a diverse region and every county has experienced varying degrees of success and challenges. The national economy has been and will continue shifting from a manufacturing-based economy to a service-based economy. Within the region some counties are in a state of crisis due to large manufacturing layoffs, while other counties', whose economies have already shifted from a manufacturing economy to a service economy, are simply experiencing slow growth.

During the last decade the region has experienced a large number of layoffs in several industries but most notably in textiles. The textile industry can attribute a great deal of the job loss to many of these jobs moving overseas. Local government and business leaders must embrace the reality that it competes in a world market. These layoffs have forced the region as well as other regions in the US who have also been affected by globalization to rethink the way they approach economic development. In this new economy **it is imperative that communities think and act regionally** to assemble a critical mass to be able to compete with external forces such as changes in trade policies. The region must also **determine what is unique to the region** and leverage these qualities to attract talent and investment. Every economic region in the nation must determine what makes their region unique and build upon that unique characteristic. Regions that cannot differentiate themselves from the competition will be at a competitive disadvantage. Finally, the region must **embrace small business, existing business and entrepreneurs as catalysts of their economy**. This plan is based around these three primary tenets.

Using the plan

The *Recommendations Report* begins with a summary of Key Findings from the *Community Assessment Report*. The *Community Assessment Report* provides a more detailed explanation of why these issues are critical to address and highlights opportunities that the region should seize. It is essential for the region to fully understand why it is critical to address these issues before embarking on implementation of the strategies that have been developed.

Implementation of any plan is always an important consideration. The Implementation section found on pages 7-10 discusses how the region should work together to implement this plan and which organizations should be involved in its implementation. An implementation matrix is also found in the Appendix of this report. The implementation matrix lists every Goal, Objective and Recommendation found in this plan - as well as timing for implementation, resources needed for implementation and performance measurements to gauge success of implementation.

EDA requires that a CEDS plan identify priorities for the region. Seven Regional Priority Projects described on pages 11-16 are projects that the Regional CEDS Committee identified that would have the most significant impact on the region. These include:

- ✓ Incorporate advanced manufacturing in all business sectors that can adopt it.
- ✓ Expand research and development by focusing on the motorsports and optoelectronics industries.
- ✓ Improve the region's workforce preparedness through programs in literacy and basic skills development.
- ✓ Develop a culture that promotes and encourages entrepreneurship.
- ✓ Promote the region's tourism assets through a well-funded cooperative effort.
- ✓ Enhance the distribution network for the region by investigating the feasibility of a intermodal site at the Charlotte Douglas International Airport.
- ✓ Develop a regional grants team to assist in implementation.

The recommendations in this plan are based on the key findings as well as the key industries that the region should target for business growth. Recommendations on Target Industries are found on pages 17-19. These brief summaries of each of the target industries is supported in the Appendix by additional information on each industry, including industry trends, Centralina's relative strength in the targeted industry, and industry requirements.

The Recommendations are divided into five *Goals* and are found on pages 21-52. The Goals are: 1) Workforce Development and Education, 2) Small Business and Entrepreneurship, 3) Quality of Life, 4) Land Use, Sites, and Infrastructure, and 5) Economic Development Efforts. Specific recommendations are provided to achieve each goal.

Once this final draft plan has been approved by the Regional CEDS Advisory Committee, it must also be endorsed by the nine counties and the City of Charlotte in order to be received as an approved plan by the Economic Development Administration (EDA).

Key Findings

The *Community Assessment Report* provided an in-depth analysis of key strengths, opportunities, and areas for improvement in the region. However, the following are the most important regional issues that this strategic document addresses:

- ✓ ***Some counties in the region have gained in its share of 25-44 year olds but the region has lost its share.***
- ✓ ***Educational attainment levels are high but workforce skills and literacy levels could hamper overall success in economic development.***
- ✓ ***Regional economic development approach is strong but regional and local efforts should focus more on programs that assist existing business growth, which will ultimately help in business recruitment efforts.***
- ✓ ***Entrepreneurial efforts are fledgling, somewhat duplicative, and competing for similar resources.***
- ✓ ***Research and development assets are tremendous but not well known or leveraged in the region.***
- ✓ ***Recreation and tourism assets exist throughout the area but are not promoted at a regional level in a coordinated fashion.***
- ✓ ***Collaboration among workforce, education, economic developers and businesses is not focused.***

Vision Statement

Every plan must start with a vision. The recommendations in this report support the vision listed below. This vision statement has been distilled from comments, opinions, and information regional stakeholders and supported by the CEDS Committee:

The Charlotte region will become known as a major applied technology center in the United States, and will leverage its strengths in business, economic diversity and entrepreneurial zeal to sustain a diverse and healthy economy.

Goals

This *Recommendations Report* contains recommendations that will increase the region's opportunities for growing its target industries and other high impact businesses. AE has identified five goals for the region to improve the economy. Each goal relates to each section of the CEDS plan. The goals are:

- Goal One:** **Workforce development and education** programs are focused on preparing the workforce for the region's target industries.
- Goal Two:** **Entrepreneurship and small business** are significant drivers of the economy.
- Goal Three:** The region offers a place for its residents to **live, play, and work**, and appeals as a place to live for young professionals and individuals employed by **target industry companies**.
- Goal Four:** The Region's **sites and infrastructure** meet the needs of target industries and a growing population.
- Goal Five:** The Region's existing talents, leaders, and resources are coordinated so that there is **a seamless system for economic development services**.

Implementation

To facilitate the implementation of the plan, a matrix has been developed (found in the Appendix) that lists each *Objective*, *Recommendation* and *Action Step*; a timeline for when steps should be taken; and identification of which organization should lead and which ones should be supportive of each Goal. Finally, **AngelouEconomics makes the following key recommendations to aid in this plan's implementation:**

- **Adopt this plan at local and regional levels.** The Centralina Council of Governments (COG) should ask each county and the City of Charlotte in the region to pass a resolution that adopts this plan as a regional plan. Endorsement of this plan at the local level will: assist the region in obtaining designation as an Economic Development District (EDD) as well as in obtaining federal funding; and send a message throughout the region that communities are committed to working together to compete in the world economy.
- **Develop a regional grants team to be housed at the COG.** Several strategies found within this plan require acquisition of federal, state, or private funding. By having two grant writers at the COG, the region can utilize the expertise of experienced grant writers to help in the implementation of this plan.
- **Continue the efforts of the Regional CEDS Committee but include more major private sector participation.** The CEDS Committee should continue to meet on a quarterly basis to review the implementation progress and make adjustments in the plan. Taskforces should be developed for each goal that should be comprised of key stakeholders within that area.
- **Centralina COG should facilitate plan implementation.** The COG should collaborate with the major stakeholders in the implementation of this plan by leading efforts such as convening and facilitating meetings, providing summaries and follow-up notes of key meetings, and providing grant writing assistance. Other organizations listed on the following pages should take a lead role in certain aspects of implementation. Since this is a regional plan, many people and organizations should work on implementation.
- **Evaluate progress.** The implementation matrix and metrics provided in the Appendix should be reviewed regularly and updated if necessary. The use of surveys to develop baseline perceptions is mentioned throughout this plan. The region should consider using a common approach to developing and implementing this survey instrument.
- **Celebrate in successes of this plan.** The often-forgotten part of implementation is appreciating the success that the region has achieved. Public and private sector leadership should meet annually to provide an update to both those that have and those that have not been involved in the development and implementation of this plan. Economic development organizations should recognize key accomplishments as well as key individuals and organizations that have provided a significant contribution toward implementation.

Centralina Regional Comprehensive Economic Development Strategy

The table below provides an explanation of key headings that are found in the **implementation matrix** and terms that are used throughout this plan.

TERM	DEFINITION
Goal	Outcome statements that define what the region is trying to accomplish
Objective	Measurable actions that support the completion of each goal
Recommendation	Tasks that will lead to the achievement of the objective
Action	Specific steps to take that support each recommendation
Budget	Additional funds necessary to implement several actions
Primary Implementer	The organization that has primary responsibility for convening taskforces and leading implementation of a specific goal
Supporting Implementer	The organization (s) that should support the primary implementer
Time Frame	Period which it takes to begin and accomplish an objective
Metric	Performance measurements to monitor, adjust, and rate the success of actions taken to accomplish an objective

Centralina Regional Comprehensive Economic Development Strategy

The table provided below illustrates the key stakeholders that should be involved in the implementation of this plan. **Note that for every major section of this plan, one organization is listed as the primary implementer under the “Function” heading.** That is not to say that the organization is responsible for implementation, but rather based upon their current involvement in their respective programs, they should spearhead the implementation in cooperation with the other stakeholders listed. This primary implementer should help in the formation of taskforces to support each major function area. Other organizations not listed as supporting organizations will be actively recruited to participate in the implementation of this plan.

Regional Comprehensive Economic Development Strategy Centralina Council of Governments Facilitating Organization	Functions	Supporting Organizations		
	Centralina Workforce Development Board	Charlotte-Mecklenburg Workforce Board	Community Colleges	
	Workforce Development and Education	Charter Schools	Gaston County Workforce Development Board	
		Colleges and Universities	Literacy Councils	
		Advantage Carolina	School Districts	
	Centralina COG	BIG Council	Charlotte Regional Partnership	Community Colleges
Entrepreneurship and Small Business Development	BizHUB	Charlotte Research Institute	Junior Achievement Orgs.	
	Business Schools	Committees of 100	Small Business Centers	
	Chambers of Commerce	Communities in Schools	Workforce Boards	
Regional Planning Alliance	Chambers of Commerce	Lee Institute	Councils of Government	
	Cities	Local Business Districts	Advantage Carolina	
	Convention and Visitors Bureaus	Urban Institute		
Quality of Life	Counties	Charlotte Regional Visitors Authority		
Centralina COG	CATS	Duke Power		
	Charlotte-Douglas International Airport	Telecommunications Providers		
	Cities	Urban Institute		
Infrastructure	Counties			
Charlotte Regional Partnership	Centralina COG	City and County ED Organizations		
	Chambers of Commerce	Duke Power		
	Advantage Carolina	Electric Cooperatives		
Economic Development		Electricities		

Regional Priorities

Seven priority projects have been identified that can provide the most significant impact for growth and development of the region's economy. The other recommendations found in this plan will also have a direct impact but many of the other recommendations need to be carried out at a local level. The following prioritized projects will help anchor certain industries in the region, improve the economies of communities in the region, and assist the region in directing resources to the most critical needs and to areas that will have the biggest impact:

- ✓ **Incorporate advanced manufacturing in all business sectors that can adopt it.**
- ✓ **Expand research and development by focusing on the motorsports and optoelectronics industries.**
- ✓ **Improve the region's workforce preparedness through programs in literacy and basic skills development.**
- ✓ **Develop a culture throughout the region that promotes and encourages entrepreneurship.**
- ✓ **Promote the region's tourism assets through a well-funded cooperative effort.**
- ✓ **Enhance the distribution network for the region by investigating the feasibility of an intermodal site at the Charlotte Douglas International Airport.**
- ✓ **Develop a regional grants team to assist with identifying and obtaining funds for implementation of this plan.**

Detailed descriptions for each of these priority projects are found on the following pages.

1. Enhance the environment for manufacturing in the region by promoting innovation and incorporating advanced manufacturing in all business sectors that can apply advanced technology in their operations.

Many manufacturing businesses are moving portions or all of their business overseas to take advantage of cheap labor and availability of skills. The United States will be able to retain and expand those manufacturing businesses that continue to use advanced technology in the development of products. The region would benefit tremendously by having a center that would focus on developing advanced technological applications to assist the existing manufacturing companies in the region and be a draw to recruiting other businesses who would take advantage of this asset.

North Carolina State University (NCSU) has a program that unites materials engineering with industry in the Center for Advanced Manufacturing Processes and Materials (CAMP-M). The center uses the materials and processes developed for microelectronics in other industries. In a project tailored to NCSU, three departments were recently awarded a joint grant by the National Textiles Center to study the application of plasma processes, developed for the electronics industry, to fibers and textiles. New high density plasma processes are used to modify the surface of fibers by etching or depositing thin coatings on them. Next, these plasmas will be used to explore the removal of surface etching contaminants in an environmentally friendly vapor process that will also reduce manufacturing costs. In addition, using these processes to harden fibers will minimize both friction and wear of textile machinery.

The region should develop a broad agenda for manufacturing and then perform a feasibility analysis to determine how a center for advanced manufacturing in this region could compliment the efforts at NCSU and assist the region and state in growing advanced manufacturing.

Project Funds necessary: \$185,000 (feasibility study)*
Source of Funds: Economic Development Administration (EDA)
Timing: late 2004

*** It is not necessary to wait for the feasibility study to use advanced manufacturing technology into existing manufacturer's operations.**

2. Expand research and development to support the motorsports and optoelectronics industries.

Motorsports and optoelectronics are two industries that have provided millions of dollars in investment and thousands of jobs in the Charlotte area. Both of these industries would substantially benefit from increased research and development to support industry growth. This collaborative should be between the Charlotte Research Institute (CRI) - the industry-collaborative arm of The University of North Carolina at Charlotte and community colleges, economic developers and businesses. Other regional R&D efforts, and those outside of the region that can support regional programs, should also be considered.

Motorsports:

North Carolina is the epicenter for world motorsports, providing close to a \$1.5 billion impact. The region is developing a planned \$50 million Motorsports Testing and Research Complex that the CRI will be assisting with research facilities. The State of North Carolina has already committed \$4 million towards this initiative but the region seeks additional funding for necessary equipment for testing. This test track will attract new racing teams and venues to North Carolina, thereby adding jobs (~70 per Nextel Cup team) and revenues (\$20 million annual revenues per Cup team, \$100 million per Formula One team). There is also a recognized synergy between the motorsports concentration in North Carolina and automotive technologies in South Carolina, leading to an educated and available workforce fertile for the addition of an automotive manufacturer in North Carolina. This initiative would draw additional racing teams to the area, provide direct and indirect jobs and spending on automotive component parts manufacturing, thereby helping to expand and retain this industry in the region.

Project Funds necessary: \$3.92 Million
Source of Funds: Economic Development Administration (EDA)
Timing: Fall 2004

Optoelectronics:

The N.C. Employment Security Commission identifies more than 60 companies in the region as optics-related with a total employment of 2,983 and wages totaling \$55,795,157 (4th quarter 2003) with average weekly wages of \$1,558. Compared to the current average weekly wage of \$632.78 for all industries in the Centralina COG region, the optics industry clearly is a much higher wage industry. This industry has declined over the last several years but industry experts anticipate high growth in this industry over the next decade. Center for Optoelectronics and Optical Communications, a major CRI center with more than \$12 million in external funding since its inception three years ago, is scheduled to move into a \$24 million, state-funded facility on the CRI campus in summer 2005. This facility will house classrooms, user facilities, laboratories and offices for more than 30 optics faculty, but lacks the funds to complete the approximately 11,948 square feet of cleanroom and laboratory space in this building that will house industrial collaborators. CRI has received more than \$8 million from the Defense Advanced Research Projects Agency (DARPA) for state-of-the-art optical fabrication and characterization tools but needs an additional \$1,270,241 to complete this space. The potential exists for a sustainable cluster of diversified optoelectronics design and manufacturing companies that rival any other region of the country.

Project Funds necessary: \$1.27 Million
Source of Funds: EDA
Timing: Fall 2004

3. Improve the region's workforce preparedness through programs in literacy and basic skills development.

Improving workforce skills and literacy should be of paramount importance to all concerned. Although there is a section in this plan devoted solely to this goal, the region feels it is necessary to highlight its importance as a priority project. The three Workforce Development Boards serving this region as well as the community colleges, school districts and other workforce and education providers are already addressing several initiatives described in this plan. However, funding must be acquired for several specific initiatives: 1) developing Literacy Councils in every county, 2) developing a Youth Literacy Corps serving the region, and 3) developing a sophisticated and well-funded campaign to promote the importance of literacy and education. It is also mentioned in the Workforce Development and Education section that the region does need to continue to address retraining of displaced workers as well as continue to foster learning for advanced students.

Project Funds necessary: \$500,000 (1/3 for each major initiative)
Source of Funds: Private sector, Corporation for National and Community Service, Knight Foundation
Timing: Fall 2004

4. Develop a culture that promotes and encourages entrepreneurship.

Small business and entrepreneurs must become a major focus for the region. These businesses and individuals will be the mainstay of the economy in years to come. Several initiatives exist or are being planned throughout the region to assist individuals interested in starting their own small business or expanding their existing enterprise. Many of the organizations involved in these efforts compete for the same pool of funds and there is real and perceived duplication of services which creates confusion in the mind of those seeking help and those wanting to support the initiatives. Stakeholders should undertake a separate study that examines all of the groups that are involved in small business and entrepreneurship, their respective services, and their sources of revenue. Secondly, a strategy should be developed that all of these organizations can commit to participating in that would best serve the region. Components of this strategy would be an organizational structure of a regional initiative, funding strategy for the initiative, and short and long-term work plan for the primary and supporting stakeholders.

Project Funds necessary: \$200,000
Source of Funds: Private sector, EDA, Department of Treasury (CDFI Fund), Kaufmann Foundation
Timing: Spring 2005

5. Promote the region's tourism assets through a well-funded cooperative effort.

Tourism is not currently promoted in a regional context. Each municipality promotes itself through its local tourism and/or economic development group but a sophisticated marketing effort should be undertaken that incorporates local tourism assets and builds upon each local tourism effort to effectively promote the entire region. The purpose of this study should be to determine an effective strategy for promoting the area to tourists and business travelers. The study should look at a larger area such as the Charlotte Regional Partnership region than just the nine counties in the region and include such items as: branding and marketing, tourism infrastructure, organizational structure for implementing a regional tourism program, cultural tourism, destinations, market analysis for the region's success in tourism, and tourism cluster development. The region should also consider working with the Mid Carolina Host organization (a volunteer organization of convention and visitor bureaus in the region) and the Charlotte Regional Visitors Authority in these efforts.

Project Funds necessary: \$300,000

Source of Funds: Private sector, chambers of commerce, convention and visitors bureaus, cities, counties

Timing: Fall 2005

6. Enhance the distribution network for the region by investigating the feasibility of a intermodal site at the Charlotte Douglas International Airport.

The primary intermodal system for the region is near downtown Charlotte, where trains coming along the Norfolk-Southern rail lines bring their cargo and where trucks then transfer the cargo to other areas, including the airport. This depot is landlocked and cannot be expanded to handle additional cargo. The Charlotte Douglas International Airport does have land sufficient for the current intermodal depot and future expansion of its operations – leading to additional cargo being transported to the airport. This change would significantly benefit the distribution and logistics industries in Greater Charlotte, providing an increased demand in services from these industries. A feasibility study should be undertaken to determine the potential costs and associated issues involved with this project.

Project Funds necessary: \$350,000 (feasibility study)

Source of Funds: Airport funding

Timing: late-2004 / early 2005

7. Develop a Regional Grants Team

It was mentioned in the implementation section of this plan how important it is for the region to have dedicated staff to support the region in obtaining state, federal and private funds for initiatives found in this plan. The Centralina COG should seek funding to pay for at least two full-time staff of experienced grant researchers, writers, and administrators. This effort could be sustained through administration fees from each grant obtained, but start-up funding is needed to help initiate this effort.

Project Funds necessary: \$150,000
Source of Funds: Private sector, foundations, EDA, COG member fees
Timing: mid-2004

Several of the regional priority projects are further discussed in the remaining sections of this plan.

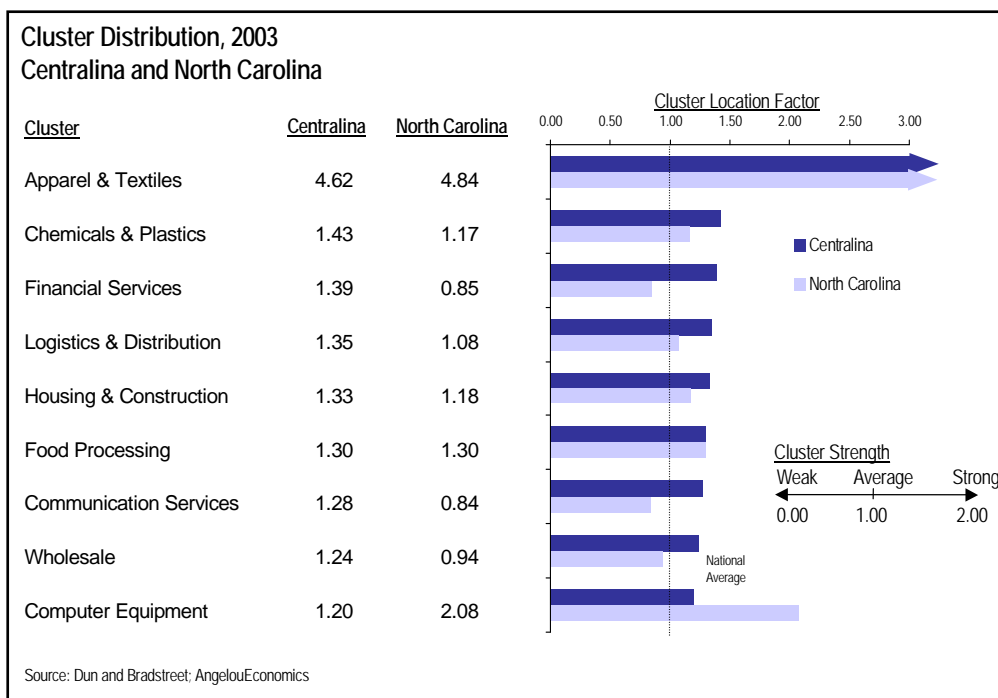
Target Industries

The information provided in this section and in the appendix are recommendations on industries that the region should target for business growth. **By understanding and focusing on existing businesses in the region, targeted business recruitment will be more successful.** It is important to know the managers at all of the major manufacturing facilities, understand who their suppliers are, and trends that they foresee in the immediate future for the industry. Business expansion and retention should be a major focus of every local economic development organization in the region, and will support business recruitment efforts.

Summary of Existing Clusters

It is important to understand growth issues of existing industries and look at national and industry growth trends to determine if these industries will continue to expand and prosper. The chart to the right illustrates the relative industry strengths that currently exist in the region. Dark blue bars that go beyond a 1.00 indicate that Centralina has more employment in this industry relative to the nation.

The Centralina region is anchored by a large metropolitan city and supported by counties that range in population and economic prosperity - with each county having its own unique identity and business strengths. This provides for a variety in employment options for the local workforce as well as industry growth opportunities. With the headquarters of both Bank of America and Wachovia, Charlotte provides the region with a large financial services cluster. Charlotte is also primarily responsible for Centralina's above average housing, communication services, and computer equipment clusters. The less urban counties contribute to the large textiles, chemicals, and distribution clusters.



While textiles and plastics are the area's largest clusters – indicating a relative regional strength and certainly important industries to the area - they are not industries in which Centralina will find significant future growth. North Carolina's textile cluster is the largest in the U.S., but the domestic apparel industry is struggling to deal with global competition. The industry will likely continue to decline in

the immediate future except for niche advanced manufacturers. The chemicals and plastics industry has been successful and the area boasts many assets specific to that industry, such as the Polymers Center for Excellence at UNCC, but as with textiles, plastics is not a high growth industry overall. Centralina's other large clusters are in fast growing and high impact industries nationwide.

Workforce

The region boasts a relatively educated workforce. However, many individuals with traditional workforce skills who lack post high school education and are in declining industries must be trained with more advanced technological skills. There is an ample supply of educated workers in the region with the 17,000 student body at UNCC, and numerous small to mid-sized colleges; 26 percent of the workforce have at least a four-year degree - higher than state and national averages. **Targeting workforce skill development of displaced workers and tomorrow's workforce for the following target industries, as well as other key industries the region wishes to target, is a critical factor for Centralina's economic prosperity.**

Target Industry Recommendations

The key challenge to the region will be developing industries with high growth nationwide that play to the areas strengths. The following six industries fit with the region's strengths, will provide the best opportunities, and should be a focus for economic development efforts:

>> Defense and Security: Charlotte is home to a number of companies in the security industry, in both manufacturing and services. The area's workforce, location, and non-union labor market are ideal for relocating defense manufacturers. Centralina should also target companies and research efforts tied to security services. This includes market segments such as surveillance and monitoring, access control, biometrics, computer security, fire/burglar alarms, and home automation.

>> Automotive: The American automotive industry has been migrating to the Southeast. North Carolina is one the few states that does not have an OEM facility. North Carolina possesses many of the same qualities that led foreign firms from Daimler to BMW to Toyota to choose Southern states for new facilities. The Centralina region boasts a large cluster of automotive suppliers, many supplying the nearby BMW facility. UNCC offers a multidisciplinary program in Motorsports and Automotive Engineering and the areas community colleges offer a multitude of vocational and technical programs tailored to manufacturing. Centralina is also home to the NASCAR industry which has grown rapidly in recent years and provides thousands of jobs that are related to NASCAR, such as component parts manufacturing.

>> Software Development: Software is one of the fastest growing industries in the U.S. and Centralina meets nearly all of the industries site selection requirements. The area's quality of life, well educated workforce, and lower than average wage rates make it an ideal fit for relocating software developers. Centralina should focus on two niche sectors within software development: companies

that provide services for the financial service industry and security software firms. These niche sectors have obvious fits with other Centralina industries and are among the fastest growing sectors of the software industry. Centralina should also consider fostering a strong logistics industry to support the strong distribution network that exists in the region.

>> **Bioinformatics:** Bioinformatics is a relatively new industry that utilizes tools from the software and biotech industries. Firms in this industry use software and high end computing systems to speed up the development of new drugs by pin pointing the efficacy of newly discovered materials and the specific population groups for testing. Centralina would have a hard time establishing a large biotech cluster due to Raleigh's proximity, the fierce competition for biotech firms, and the lack of a large medical research institution. The area has a much better chance of growing the bioinformatics industry and should focus efforts there. Gaston College was the only place outside of the Research Triangle that was funded for a biotechnology research center, which presents a good opportunity for the region.

>> **Optoelectronics:** Optics is expected to revolutionize the 21st century-just as electronics did for the 20th century. Optoelectronics is the combination of optical and electronics products into a one field whose products span numerous industries. While the optics industry has suffered since the technology downturn the niche optoelectronics industry has been less affected and long term growth prospects are excellent. UNCC's Center for Optoelectronics and the area's existing industry cluster will be invaluable in developing this cluster.

>> **Fuel Cells:** Fuel cell development is in the nascent stages currently, but revenues are projected to reach \$14 billion in less than a decade, with further growth expected. Fuel cell technology uses gases such as hydrogen to produce energy cleanly and efficiently. Much of the industry's research and development has been at federal labs and large research universities, but as technologies become commercialized, the industry is expanding elsewhere. Centralina's automotive assets, pro-business attitude, and existing industry will make the area competitive for fuel cell firms.

The information provided above highlights the Targeted Industries.

More detail on each industry is found in the Targeted Industry section of the Appendix.

Recommendations

WORKFORCE DEVELOPMENT STRATEGIES

GOAL: Workforce development and education programs are focused on preparing a workforce for the region's target industries.

Workforce development and education initiatives should be the cornerstone of any economic development initiative. It is crucial to improve literacy levels and basic workforce skills, and reduce drop out rates. The region is currently working on programs to retrain displaced older workers for new jobs and prepare everyone for jobs of the future. The recommendations found in this section and others are meant to compliment the existing programs and services and prepare the workforce for existing and future job opportunities.

The region should focus on the following objectives to address key workforce and educational issues:

- ✓ **Enhance collaboration of businesses, economic development organizations, community colleges, workforce development boards and K-12 providers.**
- ✓ **Develop well-funded and innovative literacy programs.**
- ✓ **Develop School/Career Partnerships with a focus on skills training and drop-out prevention.**

The following pages provide additional information and specific actions to take to achieve the above objectives.

Objective WF-1: Enhance collaboration of businesses, economic development organizations, community colleges, workforce development boards and K-12 providers.

Measurements:

- * **Communities in Schools will exist in every County in the region by fall 2006.**
- * **Curriculums for each target industry are found in every community college by fall 2006.**
- * **New marketing collateral such as billboards or advertisements are developed that will serve all three workforce development boards by fall 2005.**

Recommendation 1:

Develop Communities in Schools (CIS) programs in every school district and at every high school.

Actions:

- a. Determine which counties do not currently have a CIS program.
- b. Have a representative from CIS and from other school districts that have CIS meet with superintendents and board members from non-participating school districts and educate them about the impact of CIS and how they can establish a program.
- c. Assist these other school districts in acquiring the funds to develop their own program

Recommendation 2:

Adopt core industry curriculums at all community colleges and high schools.

Actions:

- a. Develop a well-defined list of workforce skills and appropriate curriculums for each targeted industry, as well as other key industries that growth potential in the region.
- b. Hold several workshops throughout the year with the community colleges, economic developers, businesses in these industries and K-12 to learn about these industries and their skill requirements.
- c. Establish a pact/agreement to develop curriculums that would provide the most impact for the region, related to these target industry requirements.
- d. Seek funding to develop the curriculum and gain private sector support.

Communities in Schools (CIS)

CIS Programs exist in several school districts in the region, but not all. This is a very successful program that encourages private sector support for various school programs. Communities invite a state CIS representative to present CIS strategies to community leaders. Interested communities then identify a local liaison who continues to introduce CIS concepts while soliciting input and support from community stakeholders. During this process, the local liaison is guided by a steering committee and community leaders. The introductory process adapts the CIS strategy to meet local needs and leads to the formation of a permanent governance structure. The CIS state office trains and works with the local liaison and serves as a continuous resource to the steering committee. <http://www.cisnc.org/>

Recommendation 3:

Develop an ambitious strategy to increase the current level of funding and efforts for marketing the importance of education, literacy and skill development as well as the economic development strategy that the region has developed.

Actions:

- a. Convene a joint meeting with the community relations committees of each workforce board to understand what internal marketing efforts have been most successful. Invite community colleges and school districts to participate in this initial discussion.
- b. This coalition should consider pooling funds together and acquiring additional private sector funds to develop a sophisticated and targeted marketing campaign that elevates the current efforts of each of the workforce boards.
- c. Hire a marketing consultant with experience in developing marketing collateral for such an effort.
- d. Implement this new marketing strategy.

Objective WF-2: Develop well-funded and innovative literacy programs.

Measurements:

- * *Literacy Councils will exist in every county in the region by fall 2005.*
- * *A Youth Literacy Corps is in place with staff and at least 10 corps members by summer 2006.*

Recommendation 1:

Develop Literacy Councils in every County.

Actions:

- a. Identify those counties that do not have a Literacy Council and determine what has limited the county's ability or interest in develop a program.
- b. Have peer-to-peer discussions among counties with Literacy Councils and counties without Literacy Councils to encourage the development of more Literacy Councils to improve literacy.

Recommendation 2:

Develop buy-in and participation from Workforce Boards, School Districts, Community Colleges, and businesses for a Youth Literacy Corps Program serving the region.

Actions:

- a. Hold a meeting with potential stakeholders to discuss this program. Invite a program administrator from the Corporation for National and Community Service.
- b. Develop a plan for how such a program would work in Centralina and obtain letters of support and agreement from major stakeholders.

Recommendation 3:

Acquire funding and develop Youth Literacy Corps Program.

Actions:

- a. Develop and submit and an application for funding from the Corporation for National and Community Service.
- b. Obtain funding and begin developing program.
- c. Seek volunteers from throughout the region.

Seattle Youth Literacy Corps

Each member serves at a partner service site four days a week, providing literacy education and support services. The focus areas include English as a Second Language (ESL), Adult Basic Education, preparation for the GED test, Conversational ESL, family literacy, financial literacy and computer literacy. AmeriCorps members receive a \$10,200 stipend and are eligible for a basic medical & dental program. Members completing the required service commitment receive a post-service education award of \$4,725 that can be used to pay student loans off or to cover tuition expenses at qualifying schools. In addition to the literacy service, they work within communities on local service projects such as trail renovation, a soccer tournament for homeless and low-income students, painting murals with students at a local grade school, and documenting the oral histories of a group of local seniors. Literacy AmeriCorps participates in up to 10 service projects each program year.

Objective WF- 3: Develop School/Career Partnerships with a focus on advanced skills training, worker retraining, and drop-out prevention.

Measurements:

- * *Develop at least one school/career partnership in every school district in the region by fall 2006.*
- * *Double the number of school/career partnership programs in school districts with existing programs by fall 2007.*

Recommendation 1:

Educate all school districts and community colleges about this important program and how it can benefit the region.

Actions:

- a. Identify all existing programs in the region and ask them to provide a 1-page summary of their activities, with descriptions of how they were started, key partners, funding, staffing, and results.
- b. Hold a regional forum/conference that focuses on each type of alternative school/career partnership program.
- c. Develop an email network so that program representatives can answer follow-up questions from school districts interested in establishing programs.

Recommendation 2:

Identify potential partnerships in every county to establish a school-career program.

Actions:

- a. Secure funding to bring school district representatives and potential partners to several model programs in the nation to visit these sites and see first hand how the respective programs are effective.
- b. Each school district should work with their local community college to identify the most appropriate program for their given situation.
- c. Develop a strategy for how each school district and partner(s) will develop a program of their own. For school districts with existing programs, they should continue furthering the programs.

The following two pages provide descriptions of the different types of alternative school-career partnership programs as well as models throughout the country.

Within Centralina, programs such as the Berry Academy of Technology or CMS's Lewis Academic Center can also serve as examples for innovative programs.

Summary of School/Career Partnership Programs

School Type	Charter Schools	ECHS Initiative Schools	Middle College HS	Other Early College High Schools
Description	Innovative public school offering alternative to traditional high schools.	Small school that combines high school and community college curriculum	Type of ECHS that works in conjunction with a community college and is located on CC campus.	Additional independent collaboration allowing students to receive higher education before leaving high school
Typical Location for Classes	Separate School Campus	Separate School Campus	Community College Campus	Mix (some HS, college campus)
Target Demographics	Wide mix, ranging from economically disadvantaged students to "early achievers" and creative type.	Disadvantaged / at-risk	Disadvantaged / at-risk	Wide mix, disadvantaged to early achievers
Created by	Local/state organizations or school boards, also	Non-profit organizations with Gates Foundation	Middle College Consortium with Gates Foundation, with collaboration between community colleges and public schools	Collaboration between community colleges and public schools
Short-Term Funding Source	Charter Sponsor (Local organization)	Gates Foundation through non-profit organizations	Gates Foundation and public funding	Public funding
Long-Term Funding Source	Public, Charter Sponsor	Public funding	Public funding	Public funding
Grades taught	usually 9-12+	usually 11-14 in 2years total	9-12+	Mix
Focus (Internships / Work)	Wide mix (Work & Internship)	Internships	Internships / Community Service	Wide mix (Work & Internship)
Special Opportunities	Job Experience	Opportunity for associate's degree	Opportunity for associate's degree	Opportunity for associate's degree
Examples	CART (CA), Indian River Charter High School	Portland's Gateway to College schools, KnowledgeWorks Foundation schools (OH)	LaGuardia Middle College HS (NYC), Mott Middle College (MI)	Chicago Public Schools & DeVry University

Early College/High School Initiative - Model Programs

Antioch University of Seattle	Antioch University Seattle is working with tribal communities, schools, and colleges in Washington State to establish eight early college high schools for Native-American youth. The programs integrate high school and Associates of Arts curricula with a local cultural emphasis at each site. Additional components include family engagement with the schools, a year-round calendar, outreach to or inclusion of middle-level students, and academic support services.	http://www.antiochsea.edu/about/earlycollege/
City University of New York, Office of Academic Affairs	The City University of New York, in collaboration with the New York City Department of Education, will be creating ten early college high schools, to be located throughout New York City.	www.collegenow.cuny.edu
Foundation for California Community Colleges	The Foundation for California Community Colleges (FCCC) is developing and implementing 15 sites for the Early College High School Initiative. The Initiative is a collaborative effort of the California Community Colleges and its K-12 feeder schools in the state.	www.foundationccc.org
Jobs for the Future	Jobs for the Future, an action/research and policy organization that promotes innovative reform in education and workforce development, is the lead coordinator, manager, and policy advocate for the Early College High School Initiative.	www.jff.org
KnowledgeWorks Foundation	KnowledgeWorks Foundation, Ohio's largest public education philanthropy, is developing a network of six early college high schools, located in large urban as well as rural Appalachian school districts.	www.kwfdn.org
Middle College National Consortium	The Middle College National High School Consortium is designing 20 early college high schools that offer underserved youth an alternative path leading to a combined high school diploma and associate's degree in five years.	www.laguardia.edu/mcnc
National Council of La Raza	The National Council of La Raza is creating 12 early college high schools serving Latino communities, and most will be charter schools. The schools have longer days and longer years than traditional public schools and offer a middle school outreach component prompting the awareness of early college high school as an option.	www.nclr.org
Portland Community College's Gateway to College	Portland Community College is creating eight "Gateway to College" schools located on community college campuses. These schools provide youth who have dropped out of school with the opportunity to earn a high school diploma while achieving college success. Students simultaneously accumulate high school credits and college credits leading to an associate's degree or certificate.	http://www.gatewaytocollege.org
SECME, Inc.	SECME partners with school systems, universities, industry, and government to increase the pool of historically underrepresented students prepare for postsecondary studies in science, technology, engineering, and mathematics. SECME will create eight early college high schools, each partnering with a SECME school system with a member historically black or Hispanic-serving institution.	www.secme.org
Utah Partnership for Education	The Governor's Office and the Utah Partnership for Education are creating six magnet and science New Century High Schools in partnership with public and higher education. Students will be encouraged to complete the equivalent of an associate's degree by graduation, qualifying for a New Century Scholarship.	www.utahsbr.edu/html/new_century.html www.utahpartnership.utah.org
Woodrow Wilson National Fellowship Foundation	The Woodrow Wilson National Fellowship Foundation is working to establish or redesign up to ten early college high schools, all of which emphasize the liberal arts. The foundation is engaging with research universities and liberal arts institutions in this effort.	www.woodrow.org

Source: <http://www.earlycolleges.org/Partners.html>

SMALL BUSINESS AND ENTREPRENEURSHIP STRATEGIES

GOAL: Entrepreneurship and small business are significant drivers of the economy.

The *Community Assessment Report* described the state of small business and entrepreneurship in the region. The findings illustrate that there is a significant lack of a coordinated effort to promote entrepreneurship throughout the region and that the research and development (R&D) strengths of local educational institutions are not well known and underutilized. There is also confusion among many in the region about the difference between small businesses and entrepreneurs.

The motivational model of entrepreneurship suggests that people are faced with the choice of becoming entrepreneurial at distinct phases in their lives - when changing jobs, moving locations, during a period of discontent with their current working environment, when the work-life balance becomes lopsided, early retirement or a return to work after a career break. This model fits with the experience of entrepreneurs and makes entrepreneurship an opportunity that can be grasped in many and varied circumstances, and allows people to consider the risks of entrepreneurship in a proper balance with the other elements of their lives. By fostering a strong small business and entrepreneurial environment, the region will attract and retain young workers and provide opportunities to some who have been displaced.

The region should focus on the following objectives to address key small business and entrepreneurship issues:

- ✓ **Market and leverage Research and Development (R&D) resources.**
- ✓ **Develop an entrepreneurial culture.**
- ✓ **Improve collaboration among small business and entrepreneurial groups.**

The following pages provide additional information and specific actions to take to achieve the above objectives.

Objective SBE - 1: Market and leverage Research and Development (R&D) resources.

Measurements:

- * ***Increase the awareness of the Charlotte Research Institute (CRI) by 200% by fall 2005.***
- * ***The number of business partnerships with the CRI increases by 200% by fall 2006.***

Recommendation 1:

Increase the awareness of the CRI.

Actions:

- a. Develop and administer a baseline survey of economic developers, elected officials, community colleges and business leaders to determine the existing level of understanding of the CRI and its programs.
- b. Based upon the results of this survey, identify key steps to take to increase the understanding and address key issues brought up in the survey.
- c. Develop effective collateral and provide presentations to key business and civic groups on the most significant aspects of the CRI and its impact in the region.
- d. Utilize effective public relations efforts with local, regional and national media on the commercialization and technology transfer effectiveness of the university.

Recommendation 2:

Increase utilization of CRI by businesses in the region.

Actions:

- a. Identify ways in which the CRI can assist businesses among the target industries and other key industries in the region.
- b. Host "Industry Days" for the target industries and other key industries to the region where the CRI demonstrates how they have assisted businesses in these industries utilize R&D in their operations and what results they have produced.

The recommendations listed above are meant to assist the CRI and the region. The regional priority project related to increasing the region's R&D for the motorsports and optoelectronics industries will also help the CRI in expanding the organization's understanding and utilization throughout the region.

Objective SBE - 2: Develop an entrepreneurial culture.

Measurements:

- * *All high schools in the region will have a Junior Achievement program by spring 2006.*
- * *More than 85% of survey respondents state that the networking events are very useful.*
- * *Angel investment to regional entrepreneurs increases by 200% by fall 2008.*

Recommendation 1:

Foster entrepreneurial spirit in education.

Actions:

- a. Develop Junior Achievement Programs in every school district.
- b. Provide training to at least one teacher at every school in the region on the subject of entrepreneurship and how they can incorporate entrepreneurship into their daily curriculum.
- c. Encourage entrepreneurship and start-ups at the university level.
- d. Host "Career Days" beginning in elementary school through high school, community college, and universities that focus on traditional and non-tradition careers but emphasize target industries.

Recommendation 2:

Support entrepreneurs.

Actions:

- a. Meet regularly with angel investment networks in and outside of the region to discuss plans for enhancing entrepreneurship.
- b. Encourage the development of management teams that can assist start-ups and middle stage entrepreneurs in succeeding.
- c. Provide an online source for local investors to provide additional capital for entrepreneurs.
- d. Expand business plan competitions throughout the region and at all levels including high school through middle stage entrepreneurs.
- e. Celebrate the success of entrepreneurs through effective public relations and award programs.
- f. Develop a sophisticated electronic newsletter for those involved in education, economic development, small business development and entrepreneurship throughout the region. This newsletter will announce fun networking events, business plan competitions, training programs being offered, and highlight recent small business and entrepreneur successes in the region.

Ideas to incorporate in education that will foster an entrepreneurial spirit:

- Promote the development of personal qualities that are relevant to entrepreneurship, such as creativity, spirit of initiative, risk-taking and responsibility;
- Raise students' awareness of self-employment as a career option (the message being that you can become not only an employee, but also an entrepreneur);
- Provide the business skills that are needed in order to start a new venture.

The 'Entrepreneurial City' Primary Schools in the Netherlands

The 'entrepreneurial city' is a project based on learning by doing. This has been put into practice by creating various 'learning landscapes' in the 'entrepreneurial city'. A learning landscape is a project in which children are trying to accomplish a certain goal, for example, setting up their own power station at school or starting their own third world shop. These projects appeal to basic entrepreneurial qualities, such as independence, creativity and cooperation. A critical success factor is the involvement of people outside the school (parents, entrepreneurs, etc.). Nowadays, more than 30 educational landscapes have been developed and several schools in different parts of the Netherlands have participated.

- g. Hold regular networking events that are fun, interactive and entertaining for small businesses and entrepreneurs to share ideas, learn from one another, conduct business, and form strategic alliances.

Objective SBE - 3: Improve, coordinate and streamline services to small business and entrepreneurs.

Measurements:

- * **More than 75% of small businesses and entrepreneurs report that services for this group have improved by spring 2006.**
- * **More than 75% of investors for small business and entrepreneur services see the return on their investment being more effective by spring 2006.**

Recommendation 1:

Improve collaboration among small business and entrepreneurial groups.

Actions:

- a. Develop a baseline survey of small business owners, entrepreneurs and investors to these individuals to identify their perspectives on the effectiveness of current programs and services that support small business and entrepreneurs.
- b. Examine all of the groups that are involved in small business and entrepreneurship to understand their respective services, their primary client targets, and their sources of revenue.
- c. Develop a strategy that all of these organizations can commit to participating in that would best serve the region (Components of this strategy would be an organizational structure of a regional initiative, funding strategy for the initiative, and short and long-term work plan for the primary and supporting stakeholders).

Several groups within the region provide services for small business and entrepreneurship with programs ranging from training, technical assistance, funding, and networking. The following are the primary organizations involved in this area:

- Business Innovation and Growth Council.
- BizHUB
- Chambers of Commerce
- SBDCs/SBTDCs
- Community Colleges
- Universities
- Committees of 100
- Workforce Boards

Recommendation 2:

Make information about starting and expanding a small businesses or enterprise widely available and centralized.

Actions:

- a. Once the small business and entrepreneurial strategy is developed (see above) a targeted marketing strategy should be developed that includes the development of one primary location (both an online portal and physical location) for individuals to obtain information on financing, business planning, networking events, procurement opportunities and other services identifies in the strategy.
- b. Hold annual or quarterly focus groups with entrepreneurs throughout the region to better understand their needs and tailor service delivery accordingly.

QUALITY OF LIFE STRATEGIES

GOAL: Region is an appealing place to live for young professionals and individuals employed by target industry companies.

The region has tremendous assets that are appealing to tourists, businesses and residents. The region's population has increased more than 25% since 1990 but the share of the 25-44 year old demographic is decreasing, while the ethnic diversity is increasing. It is crucial for the region to take steps to attract and retain a younger demographic, develop higher levels of appreciation and tolerance for diverse populations, and preserve the assets that make this region a great place to live and work.

The region should focus on the following objectives to address key quality of life issues:

- ✓ **Develop a Greater Charlotte Young Professionals Association**
- ✓ **Develop a vision for the regional growth and development**
- ✓ **Link parks, open space, and tourism destinations with a greenway network**
- ✓ **Increase the awareness and understanding of different cultures throughout the region**

The following pages provide additional information and specific actions to take to achieve the above objectives.

Objective QOL-1: Develop a Greater Charlotte Young Professionals Association

Measurements:

- * *Share of residents aged 25-44 years old will increase by 2010.*
- * *Interest of students and young professionals in staying in the region increases by 100% by fall 2008.*

Recommendation 1:

Understand young professionals' opinions about living in the region.

Action:

- a. Involve the universities, community colleges and key industries such as banking in creating and administering a survey of students and young professionals to determine what they do and do not like about the region. Ask participants to state what they would require to remain in the area.
- b. Administer this survey annually. The baseline information obtained from this survey can be used to measure success of implementation of several strategies in this plan.
- c. Share results of this survey with media and key stakeholders.

Recommendation 2:

Organize a Greater Charlotte Young Professional's Association.

Actions:

- a. Launch a regularly scheduled young professionals' networking event.
- b. Create an "alternative" web site, containing weekly club listings, movie times, and articles tuned into an 18-45 year old audience.

Recommendation 3:

Assist local educational institutions in conveying a positive image of the region to their students.

Action:

- a. Economic developers should work with community colleges and universities in the region develop information about the region geared toward young people.
- b. All of these groups should make this information available to students.

Recommendation 4:

Empower young professionals to participate in leadership organizations.

Action:

- a. Leadership organizations should invite young professionals to participate in their respective programs. The region will receive fresh ideas for the development of the region and their involvement will help retain young workers.
- b. Charge the newly-formed Greater Charlotte Young Professionals Association with the task of creating a plan to make the region a more youth-friendly place. Provide resources for this effort. The Association should present the plan to regional stakeholders and seek funding for its major initiatives.
- c. Provide funding for an annual awards ceremony where the region recognizes the contributions of young professionals in the region.

Recommendation 5:

Develop collaborative university student body “Adopt-a-Neighborhood” programs throughout the region.

Actions:

- a. Develop a consortium between student bodies at community colleges and universities to have a unified approach to helping with improvements in the following areas throughout the region:
 - Housing rehabilitation
 - Neighborhood Clean-up
 - Business planning for small businesses
 - Marketing assistance for neighborhoods, businesses, and community groups
 - Literacy programs
- b. Develop a strategy for how this consortium can assist stakeholders in the above categories.
- c. Consider developing a “volunteer match” web site for students as well as other volunteers to assist in specific needs. This can be part of the alternative web site mentioned above.
- d. Target community college and university classes that can integrate this effort into their curriculum (E.g., business, public policy, or community planning programs).

Objective QOL-2: Develop a vision for regional growth and development.

Measurements:

- * *A vision for the region will be developed by spring 2006.*

Recommendation 1:

Develop support for a regional visioning process.

Actions

- Develop examples of other regional visioning projects throughout the nation and prepare a power point presentation on the purpose, the process and the outcomes of such an initiative in the region.
- Hold meetings throughout the region with key business and public officials to reach a consensus on undertaking this initiative.
- Develop a committee comprised of key private and public leaders that will guide the regional visioning process.
- Raise support for the initiative.

Recommendation 2:

Implement the regional visioning process

Actions

- Build upon past and current efforts including the SEQL project, the Regional Planning Alliance, the Centers and Corridors Vision, and the Voices & Choices "Open Space Framework" which provides a conceptual tool for identifying and preserving valuable open space.
- Develop and implement a baseline survey that asks residents and businesses what they value in the region.
- Hold land use charette workshops throughout the region to develop several scenarios for regional growth.
- Survey the region on these growth scenarios to identify a consensus for a particular regional growth pattern.

A regional visioning forum is designed to build regional identity, increase knowledge of the common interests that link the region, identify the topics that are important to the region, and develop strategies to meet the challenges and opportunities of the next twenty years.

Centralina should be encouraged to continue current regional visioning and planning efforts. The purpose of the regional vision and plan is NOT to mandate local development decisions, but to capture commonalities among community visions, to provide a consensus set of "framework principles" toward which all communities' plans work, and to provide the business and development community with "one stop shopping" in terms of information about land development planning.

The outcomes of the regional visioning process could include:

- To capture the values of the region
- To correctly identify the trends that could take the region away from those values
- To recommend actions that will preserve the region's values and individual community character and interests.

Objective QOL-3: Link parks, open space, and tourism destinations with a greenway network

Measurements:

- * ***Dedicated greenway trail network increases by 100% per year beginning fall of 2008.***

Recommendation 1:

Develop a greenway trail network plan throughout the region.

Actions

- Through the regional visioning process and current regional planning initiatives, continue to reach consensus on a regional greenways trail network.
- Identify appropriate areas throughout the region (utilizing floodplains, existing parkland, and conservation easements) for a regional greenway trail network.
- Seek state, federal and private sector support for this initiative.
- Integrate greenways with sidewalks, transit nodes, and other pedestrian points wherever feasible.

Recommendation 2:

Assist stakeholders throughout the region in acquiring more greenway trails through land development and community planning.

Actions

- Educate communities about the potential benefit of this trail network so that their respective park plans are congruent with the overall regional trail network.
- Develop a tool box for local communities to utilize that provides sample ordinances that promote the dedication of green space towards the development of a regional greenway trail network.
- Continue a collaborative discussion involving CATS, chambers of commerce, convention and visitors' bureaus, developers, and city and county planners on the location of this network and how they work together on this initiative.
- Utilize volunteer support for trail development and maintenance. Consider utilizing the Greater Charlotte Young Professionals Association and Youth Corps participation in this effort.

Objective QOL-4: Increase the awareness and understanding of different cultures throughout the region.

Measurements:

- * **By fall 2007, more than 75% of survey respondents state that ethnic diversity benefits the region.**

Recommendation 1:

Understand how the region feels about issues of diversity and cultural awareness.

Actions

- Develop a survey instrument to understand how residents feel about specific issues related to diversity. Consider utilizing the information from the Social Capital survey regarding this issue.
- Analyze this survey information and provide educational forums to certain groups throughout the region about how the region feels about this issue.
- Develop a plan that is supported by public and private stakeholders to address major issues that arise in this survey.

The region must realize that a community's or region's openness to new people and ideas, diversity, tolerance, respect and acceptance of others is a sign of social integrity, but also a practice that will pay off economically since creative individuals are drawn to areas that appreciate and celebrate these concepts.

Recommendation 2:

Develop and support visible celebrations of diversity.

Actions

- Sponsor programs during nationally recognized celebratory months (as well as other times during the year) to highlight the various cultures represented in the region.
- Support the concept of "Diversity Champion and Best Practices" of the Charlotte Chamber and consider expanding this program to a regional level.
- Gain global recognition and stature for this program and use it as a means of branding the region internationally.
- Use images of diverse individuals living in the region in branding and image strategies.

Example Calendar for Diversity Celebration

Hispanic Heritage Month - September
Native American Heritage Month - November
Kwanzaa Celebration - December
Black History Month - February
Asian/Pacific American Heritage Month - May
International Awareness Week - April

Recommendation 3:

Promote learning about different cultures in K-12.

Actions

- Workforce developers and educators should meet regularly to discuss how they can adopt strategies within their programs to address an appreciation of diversity.
- Ask student councils in high schools to support this concept and develop their own programs for celebrating diversity.

LAND USE, SITES AND INFRASTRUCTURE

GOAL: The Region's sites and infrastructure meet the needs of target industries and a growing population.

Some of the region's best assets include the transportation network and accessibility. The region has a plethora of vacant industrial sites but not all of them are certified by the state and cannot be actively marketed. The technological infrastructure is plentiful with miles of dark fiber optic cable throughout the region, but very few cities have more advanced technological assets that can be appealing to small business and entrepreneurs.

The region should focus on the following objectives to address key land use, sites and infrastructure issues:

- ✓ **Increase the competitiveness of the Charlotte Douglas International Airport.**
- ✓ **Improve the regional transportation circulation.**
- ✓ **Improve utilization of existing sites and buildings.**
- ✓ **Improve technological infrastructure in region.**
- ✓ **Implement key infrastructure projects from other CEDS reports.**

The following pages provide additional information and specific actions to take to achieve the above objectives.

Objective LUSI-1: Increase competitiveness of the Charlotte Douglas International Airport

Measurements:

- * *Average fares decrease by 25% by fall 2007.*
- * *Feasibility study for intermodal hub at airport is complete by spring 2008.*
- * *Conduct preliminary engineering/environmental analysis of West Rapid transit corridor connecting Airport to downtown Charlotte by fall 2006.*

Recommendation 1:

Proactively approach the loss of a HUB.

- a. US Airways filed for Chapter 11 bankruptcy and is now planning a low fare restructuring. It is important for the entire community to look at other airports that have lost a major HUB to understand the potential impact to the Charlotte region if this were to happen.
- b. Ask major businesses who use the airport to provide a top five list of their destinations with an approximate number of trips made per year for each major business. Ask the airport to provide similar information on specific trip destinations.
- c. Identify carriers who could potentially provide the service demands of major business.
- d. Ask major businesses to provide letters of encouragement to these other carriers and then take a regional delegation of public and private leaders to meet with the heads of these carriers to encourage them to provide service if needed.
- e. Identify strategies and federal funds to assist with a potential displacement of thousands of airline employees.

Recommendation 2:

Improve the intermodal system at the Airport

- a. Determine the Airport's and the City of Charlotte's ability to pay for a feasibility study to look at moving the current intermodal system from downtown to the airport's land.
- b. Develop a request for proposals and hire a consultant to undertake this feasibility study.
- c. Based upon the results of the feasibility study, begin talks with Norfolk-Southern and other primary stakeholders to work towards developing the intermodal site at the Airport.
- d. Engage the community in a series of discussions about the benefit of this project.
- e. Develop support from public and private sector throughout the region and in Washington, DC.

How Arkansas Dealt with Losing Airlines

The Arkansas Employment Security Department received three federal grants from the U.S. Department of Labor totaling \$2 million to aid hundreds of workers affected by layoffs in the state's airline industry for the following:

- A grant of \$1.6 million that will provide assistance to individuals laid off from the Southwest Airlines Reservation Center in Little Rock. The federal funds will help about 400 workers in Faulkner, Lonoke, Pulaski and Saline counties. Southwest announced in November that it will close its reservation center here, resulting in the loss of 730 Arkansas jobs.
- A grant of \$400,000 that will provide assistance to 111 workers in Benton and Washington counties laid off from Ozark Aircraft Systems in Bentonville.

Objective LUSI -2: Improve regional transportation circulation

Measurements:

- * *More than 30% of cities and counties in the region adopt dedicated bike lane standards for new roadways by spring 2006.*
- * *More than 75% of survey respondents report that commuter options have improved by spring 2008.*

Recommendation1:

Develop system of bikeways connecting major urban areas and tourism destinations.

Actions:

- a. Build upon the efforts of the greenways and trails planning project that is discussed in the Quality of Life section above.
- b. Work with city, county and state transportation planners and officials to develop standards for new roads and highways that could include dedicated bike lanes.
- c. Consider utilizing the rail right-of-way for hike and bike lanes.

Recommendation2:

Develop well-integrated and sustainable regional rapid rail system

Actions:

- a. Support the efforts of the Charlotte Area Transit System (CATS) in providing alternative transportation choices in the region.
- b. Provide more of an educational forum on the benefits of the long-range multimodal plan, highlighting the cost-benefit, the benefits of traffic congestion given population growth that is expected, and illustrate examples of successful light and commuter rail systems in other cities in the nation. This information could be provided on the website, but also provided at civic organizations.
- c. Successfully implement the South Corridor Light rail project (the first rapid transit line in the region).
- d. Collaborate with CATS in conducting Major Investment Studies to identify how rapid transit can extend into adjacent counties.
- e. Collaborate with counties in the region to expand regional express bus service.

Objective LUSI -3: Improve utilization of existing sites and buildings.

Measurements:

- * *More than 50% of the existing industrial sites that are currently not certified are certified by spring 2006.*
- * *Three vacant mills or other industrial buildings are identified for redevelopment by spring 2006.*
- * *The region achieves national press recognition on the process it is using in redeveloping these vacant sites.*

Recommendation 1:

Take efforts to certify all adequate commercial and industrial sites in the region.

Actions:

- a. Identify all of the sites in the region that need certification.
- b. Understand how the Future Forward region is embarking on this strategy and what success they are experiencing.
- c. Meet with staff from the North Carolina Department of Commerce to fully understand the requirements in site certification.
- d. Identify funding sources (such as the Golden Leaf Foundation) that can assist in the site certification process.

Recommendation 2:

Redevelop vacant mills near urban centers.

Actions:

- a. Continue the efforts that are currently underway to analyze the feasibility of redeveloping mills into mixed use urban villages. Look to other CEDS projects such as Future Forward to understand how they will be using federal funds on a similar initiative.
- b. Identify several sites throughout the region that have market potential for redevelopment.
- c. Host a national conference that addresses industrial redevelopment. Consider asking organizations such as the Urban Land Institute to sponsor such a program.
- d. Market several sites to national developers for redevelopment.

Objective LUSI -4: Improve technological infrastructure in region.

Measurements:

- * *The region will host a national conference on Wireless Internet (Wi-Fi) by spring 2006.*
- * *Five communities in the region will have sophisticated Wi-Fi systems by fall 2007.*

Recommendation 1:

Develop Wi-Fis throughout target cities

Actions:

- a. Hold a national conference for cities in the region to learn about the benefits and costs of developing a Wi-Fi system in their downtowns and other targeted areas.
- b. Invite several communities from across the country to highlight their programs.
- c. Encourage wireless technology, internet and telecommunications providers to sponsor the event, and gain national attention.
- d. Identify costs, benefits and financing opportunities for communities in the region to develop Wi-Fi systems.

Recommendation 2:

Fully understand and market fiber optics network and capabilities.

Actions:

- a. Develop an understandable map and associated text of the region's fiber optic resources.
- b. Utilize this information in business expansion, retention and recruitment efforts.

Wi-Fi in Downtown Concord

As an example of the City's commitment to its central business district, this project will create a high-speed wireless Internet (Wi-Fi) zone in the Municipal Service District of Downtown Concord. The service would be based on a series of overlapping wireless transmitter Wi-Fi "hot spots" linked together to form a zone which encompasses a 10-block area formed by the downtown streets of Union, Cabarrus, Church, Market, Spring, McCachern, Kilarney, and Corbin. While an exact number of users have not yet been determined, access to the Internet via a high-speed connection would be adequate to serve in excess of 50 users at a time. The penetration of the wireless signal is typically limited to the open streets and storefront areas of the businesses.

The city will be supplying the Internet service with each user being required to provide their hardware (PC, Handheld, wireless card, etc.). The wireless network will be outside of the City's current data and voice networks in order to minimize the security issues. The City will decide whether or not a fee is charged for this service. Several communities are supplying this service for free, free for a limited amount of access time, or completely fee based.

Objective LUSI -5: Implement key infrastructure projects from other CEDS reports.

Several key infrastructure projects were recommended in the three other CEDS plans. Information on these infrastructure projects as well as other key projects is provided in the Appendix of this plan.¹

However, AE feels that of all of these projects, the extension of Highway 74 through Anson County is crucial to the livelihood of that county and will certainly benefit the region by improving the highway network and accessibility for tourism and distribution. The Monroe Bypass could also be significant and is currently funded but must cross several environmental hurdles before developed. Although not part of another CEDS projects, AE also feels that Independence Freeway in Mecklenburg County is also a priority infrastructure project for the region.

¹ No major infrastructure projects were found for Iredell County in the Future Forward CEDS Plan.

ECONOMIC DEVELOPMENT EFFORTS

GOAL: The Region's existing talents, leaders, and resources are coordinated so that there is a seamless system for economic development services in Region.

The Charlotte region must become more assertive as an economic development destination and create the necessary vision and find the determination not to merely be competitive, but a trend setter and a leader in economic development. The region must think and believe that its peer communities are the top economic development destinations in the nation today (regions such as Dallas, San Diego, Seattle, Atlanta, Denver, and Chicago) only then can the region truly reach its full potential. The region must also become more active in business retention and expansion. By focusing on existing business, business recruitment efforts will become more successful.

The region should focus on the following objectives to address key economic development issues:

- ✓ **Develop a well-funded internal marketing campaign.**
- ✓ **Improve efforts to support existing business.**
- ✓ **Develop a regional tourism campaign.**
- ✓ **Develop a unified regional and local brand program.**
- ✓ **Focus economic development on target industries and other key industries for the region.**
- ✓ **Develop and utilize incentives for sustainable industry.**
- ✓ **Create an Economic Development District for the region.**

The following pages provide additional information and specific actions to take to achieve the above objectives.

Objective ED - 1: Develop a well-funded internal marketing campaign.

Measurements:

- * *75% of survey respondents identify the top three issues that the region is trying to address by spring 2006.*

Recommendation 1:

Implement a joint **publicity campaign** aimed at the general public but more importantly at the private sector to build awareness of key issues.

Actions:

- Administer a survey to assess the region's current understanding of the key economic issues that are being addressed.
- Hire a public relations consultant
- Agree on key areas to focus publicity, but consider 1) education & workforce development, 2) entrepreneurship, and 3) economic development vision.
- Support the regional awareness campaign by advertising utilizing billboards, newspapers and business journals, and primary radio stations.
- Develop a collateral (value of education) piece with a letter that can be used in a direct mail campaign to residents and also reside on each county's ED Web site
- Build awareness by having marketing task force members speak at regional business association events.
- Host annual regional economic forecast conference. The forecast could be held as an annual follow up to this strategy.

A regional internal marketing campaign builds awareness on key issues that all counties face, such as the importance of education and entrepreneurship. An internal marketing campaign also applies to tourism – getting people interested, knowledgeable and excited about visiting locations throughout the region.

Objective ED – 2: Improve efforts to support existing business.

Measurements:

- * ***By resolution, more than ten counties and/or communities in the Charlotte Regional Partnership region adopt a Business Retention and Expansion program as their primary economic development effort by spring 2005.***

Recommendation 1:

Gain support for a Business Retention and Expansion (BRE) program

Action

- a. Enlist the support of regional economic developers to assist in education and training at the local level on how to develop a BRE program. Include the Charlotte Regional Partnership, Electricities, Electric Cooperatives, Duke Power, Centralina COG/EDD and others.
- b. Identify communities that are interested and ready for training and education to develop their own specific BRE.
- c. Raise necessary funds to provide this training and support.

Recommendation 2:

Implement a BRE program

Action

- a. Have both municipal and county elected officials sign resolutions of support for a local BRE program.
- b. Identify a local sponsoring agency (E.g. economic development corporation or chamber of commerce).
- c. Provide training and materials to local communities (elected officials should also be a part of this training).
- d. Implement an existing business survey. Send an introductory letter, signed by the city and county chief elected officials as well as the president of the sponsoring agency and regional entities, to each plant or office manager.
- e. Develop a pre-survey and post-survey publicity program. This is normally done by the local sponsoring agency.
- f. Develop a system to respond to local problems identified during the survey process.
- g. Develop an ongoing follow-up program for established businesses.

Several sophisticated business retention and expansion programs do exist in the region and should be looked to as models for the region to replicate. Lincoln and Gaston counties, for example, have strong existing business programs and dedicated business coordinators.

Objective ED – 3: Develop a regional tourism campaign.

Measurements:

- * *Regional tourism revenue grows by 10% per year beginning in 2006.*
- * *More than 75% of survey respondents rate the region as a tourist destination by spring 2006 and can identify more than five tourist destinations throughout the region.*

Recommendation 1:

Develop consensus towards a regional tourism promotion program.

Action

- a. Convene a meeting among local organizations that promote each county for tourism.
- b. Discuss in a facilitated format specific areas that each local group could see a benefit from cooperating in a regional tourism program.
- c. Identify specific areas that the group is willing to cooperate.
- d. Each local organization should take this information to their respective boards and gain a resolution of support for cooperating on these agreed upon regional tourism initiatives.

Recommendation 2:

Develop a regional tourism program.

Action

- a. Develop a strategy, including marketing collateral, for a regional tourism program.
- b. Develop and implement a survey of local residents and tourists coming from outside the region on their perspectives of the region as a tourism destination. Utilize this baseline information to assess progress of this effort.

The region should consider working with the Mid Carolina Host organization (a volunteer organization of convention and visitor bureaus in the region) and the Charlotte Regional Visitors Authority in these efforts.

Objective ED – 4: Develop a unified regional and local marketing program.

Measurements:

- * ***At least 75% of local economic development organizations incorporate “a Charlotte USA Community” into local marketing efforts by fall 2005.***

Recommendation 1:

Develop an understanding throughout the region of the importance and benefits of utilizing a regional tagline.

Action

- a. The Charlotte Regional Partnership should consider providing an educational forum to local economic development organizations (EDO) on what type of impact they could receive by utilizing a regional tagline in their local economic development marketing efforts. This could be a part of a larger discussion but it is crucial for EDOs to understand that site selectors and businesses that the communities are trying to target for business recruitment will recognize the regional identity before they would recognize the local identity.

Recommendation 2:

Local economic development organizations should consider updating their respective marketing efforts with a focus on regional consistency with local flexibility.

Action

- a. Each local economic development organization should consider updating their local brand and determine how it can be unique and representative of their community, yet tie into an overall regional brand.
- b. The Partnership may wish to assist local communities with this effort.

Objective ED – 5: Focus economic development on target industries and other key industries for the region.

Measurements:

- * *Develop a list of businesses within the region that fall within the target industries by spring 2005.*
- * *Host at least one conference per year for key target industries beginning by spring 2006.*

Recommendation 1:

Build support and understanding of target industries

Action

- a. Develop a clear and concise brochure that illustrates the key target industries that the region will focus its economic development efforts.
- b. Develop a list of target industry businesses in the region.
- c. Hold a forum for elected officials, economic developers, workforce providers and educators that showcase target industry businesses that exist in the region. Combine efforts of this action with those in the Workforce Development and Education section of this plan.

Recommendation 2:

Actively recruit businesses in targeted industries to the region.

Action

- a. Perform peer to peer marketing. This form of marketing is one of the most effective economic development marketing tools. Once the region has identified key target industry businesses within the region, it should take site visits to key areas in the nation where there is a concentration of similar businesses. Business leaders should attend these marketing trips – not just economic developers and elected officials.
- b. Develop collateral that is specific to each target industry.
- c. Become a host for several of the target industry's annual conferences. Highlight the region's assets in each of these key target industries; educate the participants about the direction that the region is taking to build a cluster within this industry.

Objective ED – 6: Develop and utilize incentives for sustainable industry.

Measurements:

- * *An analysis of existing incentive policies is performed by fall 2005.*
- * *An economic toolbox is developed by spring 2006.*

Recommendation 1:

Gain a thorough understanding of incentive policies throughout the region.

Action

- a. Obtain a list of incentive programs and policies for every taxing entity in the region
- b. Develop an analysis to show what types of industry/business are being encouraged through the incentive programs and determine if these policies will encourage the targeted industries and other high value industries that the region is encouraging to grow.
- c. Provide summaries of this analysis to economic developers throughout the region.

Recommendation 2:

Provide advice to municipalities and economic developers on recommended changes to incentive policies and other tools to use in business development.

Action

- a. Develop sample incentive policies for communities.
- b. Develop an economic development toolbox for promoting businesses throughout the region.
- c. Support the self-financing bond referendum with a unified regional public relations strategy.

Sample Contents of an Economic Development Toolbox

- ✓ Sample agreements for self-financing bonds.
- ✓ Examples of how federal and state funds have been creatively utilized to promote different types of business development.
- ✓ Case studies of successful economic incentives and practices.
- ✓ Examples of economic impact analyses to determine if incentives yield a net positive result to a community.
- ✓ Sample sustainable industry incentives could include green building practices and clean industry incentives.

Objective ED – 7: Create an Economic Development District for the region.

Measurements:

- * *An Economic Development District (EDD) is created by fall 2005.*
- * *Funds for the EDD are acquired by fall 2005.*

Recommendation 1:

Create an EDD.

Action

- a. Meet with Economic Development Administration (EDA) officials to fully understand the application guidelines and the process for obtaining the federal designation of an EDD for the region.
- b. Submit an application and the appropriate support documentation to EDA for EDD designation.

Recommendation 2:

Develop a work plan and support for implementing a work plan for the EDD.

Action

- a. Obtain public and private sector support for any required match for the EDD work plan.
- b. Working with the CEDS committee, develop a work plan for the EDD that builds upon this CEDS Strategy. The work plan should be a detailed work plan for the first year and a more broad work plan for subsequent years.
- c. Update the work plan annually and continually build support for the EDD.

An anticipated outcome of this CEDS study is the creation of an Economic Development District (EDD) encompassing the nine counties of the Centralina COG. These districts are federally sanctioned organizations created to reduce unemployment and under-employment, and increase incomes in areas of economic distress. The main component for accomplishing this function is the creation of a comprehensive economic development strategy (CEDS). Economic Development Districts are established because no other organizations within their region have the capacity and access to resources to create regional economic development plans that include and benefit each community in the district.

Partnership Planning Grants for Economic Development Districts (source: EDA)

Ongoing planning grant assistance provides support for the formulation and implementation of local economic development programs as well as strategies designed to create and retain permanent jobs and increase income for the unemployed and underemployed in areas of economic distress. Grants are intended to enhance economic development planning capability, support the formulation of development policies, and assist in building local institutional capacity. Planning grants are awarded to establish and implement effective economic development programs at local and regional levels. Eligible activities under this program include:

- ✓ preparation and maintenance of a Comprehensive Economic Development Strategy (CEDS) process,
- ✓ implementation of the elements of the strategy, and
- ✓ provision of planning and technical assistance services to communities and local governments within the organization's jurisdiction.

Appendix

Implementation Matrix
Target Industry Information
Other CEDS Recommendations

Implementation Matrix

Summary of Workforce Development and Education Recommendations

GOAL: Workforce development and education programs are focused on preparing a workforce for the region's target industries.

RECOMMENDATIONS	Start Timing	End Timing	Budget	Page # in Rpt.
Objective WF-1: Enhance collaboration of businesses, economic development organizations, community colleges, workforce development boards and K-12 providers. <i>Measurements:</i> * Communities in Schools will exist in every County in the region by fall 2006. * Curriculums for each target industry are found in every community college by fall 2006. * New marketing collateral such as billboards and advertisements is developed that will serve all three workforce development boards by fall 2005.	2004	2006	\$ 500,000	22
Recommendation 1: Develop Communities in Schools (CIS) programs in every school district and at every high school. Recommendation 2: Adopt core industry curriculums at all community colleges and high schools. Recommendation 3: Develop an ambitious strategy to increase the current level of funding and efforts for marketing the importance of education, literacy and skill development as well as the economic development strategy that the region has developed.				
Objective WF-2: Develop well-funded and innovative literacy programs. <i>Measurements:</i> * Literacy Councils will exist in every county in the region by fall 2005. * A Youth Literacy Corps is in place with staff and at least 10 corps members by summer 2006.	2005	2006	TBD	24
Recommendation 1: Develop Literacy Councils in every County. Recommendation 2: Develop buy-in and participation from Workforce Boards, School Districts, Community Colleges, and businesses for a Youth Literacy Corps Program serving the region. Recommendation 3: Acquire funding and develop Youth Literacy Corps Program.				
Objective WF- 3: Develop School/Career Partnerships with a focus on skills training and drop-out prevention. <i>Measurements:</i> * Develop at least one alternative school/career partnership in every school district in the region by fall 2006. * Double the number of school/career partnership programs in school districts with existing programs by fall 2007.	2005	2006	TBD	25
Recommendation 1: Educate all school districts about this important program and how it can benefit the region. Recommendation 2: Identify potential partnerships in every county to establish a school-career program				

Priority Code - Must Do Good to Do

TOTAL BUDGET = \$ 500,000

Summary of Entrepreneurship Recommendations

GOAL: Entrepreneurship and small business growth are significant drivers of the economy.

RECOMMENDATIONS	Start Timing	End Timing	Budget	Page # in Rpt.
Objective SBE - 1: Market and leverage Research and Development (R&D) resources. Measurements: * The level of understanding of the Charlotte Research Institute (CRI) increases by 200% by fall 2005. * The number of business partnerships with the CRI increases by 200% by fall 2006.	2004	2006	\$ 185,000 \$ 5,190,000	29
Recommendation 1: Increase the understanding of the CRI. Recommendation 2: Increase utilization of CRI by businesses in the region.				
Objective SBE - 2: Develop an entrepreneurial culture. Measurements: * All high schools in the region will have a Junior Achievement program by spring 2006. * More than 85% of survey respondents state that the networking events are very useful. * Angel investment to regional entrepreneurs increases by 200% by fall 2008.	2004	2008	\$ 200,000	30
Recommendation 1: Foster entrepreneurial spirit in education. Recommendation 2: Support entrepreneurs throughout the region.				
Objective SBE - 3: Improve, coordinate and streamline services to small business and entrepreneurs. Measurements: * More than 75% of small businesses and entrepreneurs report that services for this group have improved by spring 2006. * More than 75% of donors for small business and entrepreneur services see the return on their investment being more effective by spring 2006.	2004	Jun-05	TBD	31
Recommendation 1: Improve collaboration among small business and entrepreneurial groups. Recommendation 2: Make information about starting and expanding a small businesses or enterprise widely available and centralized.				
Priority Code - : Must Do = Good to Do			TOTAL BUDGET : \$ 5,575,000	

Budget Explanation: Several budgets are To Be Determined (TBD) depending upon the scale of the project and initiative.

Centralina Regional Comprehensive Economic Development Strategy

Summary of Quality of Life Recommendations

GOAL: Region is an appealing place to live for young professionals and individuals employed by target industry companies.

RECOMMENDATIONS	Start Timing	End Timing	Budget	Page # in Rpt.
Objective QOL-1: Develop a Greater Charlotte Young Professionals Association <i>Measurements:</i> * Share of residents aged 25-44 years old will increase by 2010. * Interest of students and young professionals in staying in the region increases by 100% by fall 2008.	2005	ongoing	\$ 50,000	33
Recommendation 1: Understand young professionals' opinions about living in the region. Recommendation 2: Organize a Greater Charlotte Young Professional's Association. Recommendation 3: Assist local educational institutions in conveying a positive image of the region to their students. Recommendation 4: Empower young professionals to participate in leadership organizations. Recommendation 5: Develop collaborative university student body "Adopt-a-Neighborhood" programs throughout the region.				
Objective QOL-2: Develop a vision for regional growth and development <i>Measurements:</i> * A vision for the region will be developed by spring 2006.	2005	2007	TBD	35
Recommendation 1: Develop support for a regional visioning process. Recommendation 2: Implement the regional visioning process				
Objective QOL-3: Link parks, open space, and tourism destinations with a greenway network <i>Measurements:</i> * Dedicated greenway trail network increases by 100% per year beginning fall of 2006.	2005	2006	\$ 300,000	36
Recommendation 1: Develop a greenway trail network plan throughout the region. Recommendation 2: Assist stakeholders throughout the region in acquiring more greenway trails through land development and community planning.				
Objective QOL-4: Increase the awareness and understanding of different cultures throughout the region. <i>Measurements:</i> * By fall 2007, more than 75% of survey respondents state that ethnic diversity benefits the region.	2005	2007	TBD	37
Recommendation 1: Understand how the region feels about issues of diversity and cultural awareness. Recommendation 2: Develop and support visible celebrations of diversity. Recommendation 3: Promote learning about different cultures in K-12				
Priority Code - Must Do = Good to Do	TOTAL BUDGET = \$ 350,000			

Budget Explanation: Several budgets are To Be Determined (TBD) depending upon the scale of the project and initiative.

Centralina Regional Comprehensive Economic Development Strategy

Summary of Land Use, Sites and Infrastructure Recommendations

GOAL: Region's sites and infrastructure will meet the needs of target industries and new economic development vision.

RECOMMENDATIONS	Start Timing	End Timing	Budget	Page # in Rpt.
Objective LUSI-1: Increase competitiveness of the Charlotte Douglas International Airport Measurements: * Average fares decrease by 25% by fall 2007. * Feasibility study for intermodal hub at airport is complete by spring 2008. * Conduct preliminary engineering/environmental analysis of West Rapid transit corridor connecting Airport to downtown Charlotte by fall 2006.	2005	2008	\$ 350,000	39
Recommendation 1: Proactively approach the loss of a HUB.				
Recommendation 2: Improve the intermodal system at the Airport				
Objective LUSI -2: Improve regional transportation circulation Measurements: * More than 30% of cities and counties in the region adopt dedicated bike lane standards for new roadways by spring 2006. * More than 75% of survey respondents report that commuter options have improved by spring 2008.	2004	ongoing	TBD	40
Recommendation 1: Develop system of bikeways connecting major urban areas and tourism destinations.				
Recommendation 2: Develop well-integrated and sustainable regional rapid rail system.				
Objective LUSI -3: Improve utilization of existing sites and buildings. Measurements: * More than 50% of the existing industrial sites that are currently not certified are certified by spring 2006. * Three vacant mills or other industrial buildings are identified for redevelopment by spring 2006. * The region achieves national press recognition on the process it is using in redeveloping these vacant sites.	2004	ongoing	TBD	41
Recommendation 1: Take efforts to certify all adequate commercial and industrial sites in the region.				
Recommendation 2: Redevelop vacant mills near urban centers				
Objective LUSI -4: Improve technological infrastructure in region. Measurements: * The region will host a national conference on Wireless Internet (Wi-Fi) by spring 2006. * Five communities in the region will have sophisticated Wi-Fi systems by fall 2007.	2005	2007	TBD	42
Recommendation 1: Develop Wi-Fis throughout target cities				
Recommendation 2: Fully understand and market fiber optics network and capabilities.				
Objective LUSI -4: Implement key infrastructure projects from other CEDS reports. Priority Code - = Must Do = Good to Do	2005	2007	TBD	43
			TOTAL BUDGET = \$ 350,000	

Budget Explanation: Several budgets are To Be Determined (TBD) depending upon the scale of the project and initiative.

Centralina Regional Comprehensive Economic Development Strategy

Summary of Economic Development Efforts Recommendations

GOAL: The Region's existing talents, leaders, and resources are coordinated so that there is a seamless system for economic development services.

RECOMMENDATIONS	Start Timing	End Timing	Budget	Page # in Rpt.
Objective ED - 1: Develop a well-funded internal marketing campaign. Measurements: * 75% of survey respondents identify the top three issues that the region is trying to address by spring 2006.	2004	2006	TBD	45
Recommendation 1: Implement a joint publicity campaign aimed at public and private sector to build awareness of key issues.				
Objective ED – 2: Improve efforts to support existing business. Measurements: * By resolution, more than ten communities in the region adopt a Business Retention and Expansion program as their primary economic development effort by spring 2005.	2004	2005	TBD	46
Recommendation 1: Gain support for a Business Retention and Expansion (BRE) program				
Recommendation 2: Implement a BRE program				
Objective ED – 3: Develop a regional tourism campaign. Measurements: * Regional tourism revenue grows by 10% per year beginning in 2006. * More than 75% of survey respondents rate the region as a tourist destination by spring 2006 and can identify more than five tourist destinations throughout the region.	2005	2006	\$ 300,000	47
Recommendation 1: Develop consensus towards a regional tourism promotion program.				
Recommendation 2: Develop a regional tourism program.				
Objective ED – 4: Develop a unified regional and local marketing program. Measurements: * At least 75% of local economic development organizations incorporate "a Charlotte USA Community" into local marketing efforts by fall 2005.	2005	2006	TBD	48
Recommendation 1: Develop an understanding throughout the region of the importance and benefits of utilizing a regional tagline.				
Recommendation 2: Local economic development organizations should consider updating their respective marketing efforts with a focus on regional consistency with local flexibility.				
Objective ED – 5: Focus economic development on target industries and other key industries for the region. Measurements: * Develop a list of businesses within the region that fall within the target industries by spring 2005. * Host at least one conference per year for key target industries beginning by spring 2006.	2004	2006	TBD	49
Recommendation 1: Build support and understanding of target industries				
Recommendation 2: Actively recruit businesses in targeted industries to the region.				
Objective ED – 6: Develop and utilize incentives for sustainable industry. Measurements: * An analysis of existing incentive policies is performed by fall 2005. * An economic toolbox is developed by spring 2006.	2005	2006	TBD	50
Recommendation 1: Gain a thorough understanding of incentive policies throughout the region.				
Recommendation 2: Provide advice to municipalities and economic developers on recommended changes to incentive policies and other tools to use in business development.				
Objective ED – 7: Create an Economic Development District for the region. Measurements: * An Economic Development District (EDD) is created by fall 2005. * Funds for the EDD are acquired by fall 2005.	2004	2005	\$ 150,000	51
Recommendation 1: Create an EDD.				
Recommendation 2: Develop a work plan and support for implementing a work plan for the EDD.				
Priority Code - ■ = Must Do ■ = Good to Do	TOTAL BUDGET : \$ 450,000			

Budget Explanation: Several budgets are To Be Determined (TBD) depending upon the scale of the project and initiative.

Target Industries

Fuel Cells

Industry Trends

Fuel cell technology was first used in the Apollo Space Program and recently gained public support during President Bush's 2004 State of the Union speech. Fuel Cells are electrochemical devices that combine hydrogen and oxygen to generate electricity, heat, and water without combustion or harmful emissions. The advantages of fuel cells are: near zero emissions, few moving parts, and ability to generate electricity at remote locations without transmission lines.

Applications for fuels cells are classified into three categories: stationary power, transportation, and portable applications. Stationary power applications include power for residential and commercial buildings. Fuel cells can provide power on site without the need for transmission lines, which is important for remote sites. Transportation applications vary from wheel chairs, golf carts, cars, vans, and buses. Fuel cell technology is being tested by every major automaker worldwide. The technology will first be introduced by large fleet vehicles such as busses and will spread to smaller vehicles as the fueling infrastructure develops. Portable applications include electronic devices such as laptop computers, cell phones, cameras, and generators.

The outlook for fuel cells is bright. While the fuel cell industry is the smallest of the major clean energy industries, its projected growth is the highest. The current U.S. market for fuel cells is estimated to be just \$700 million but is expected to grow to \$14 billion over the next decade. Presently, the barrier to commercialization is the manufacturing costs. It is estimated that some 4,000 companies worldwide are developing fuel cell applications. Automakers, governments, and other industries have invested at least \$7 billion over the last decade in fuel cell research and development. The automotive industry has funded the majority of industry research and development to date with nearly every major car company planning to debut a fuel cell powered vehicle within a decade. The U.S. Department of Energy estimates that fuel cell development could add as many as 750,000 jobs to the U.S. economy by 2030.

Fuel Cells

Fuel cell development is split between companies whose primary focus is fuel cells and those involved in the end use of the technology.

Company	Industry
Arbin Instruments	Batteries
Ballard Power Systems	Zero-emissions power
DaimlerChrysler	Automotive
Dupont	Chemicals, materials, energy
Motorola	Communications

Market Size

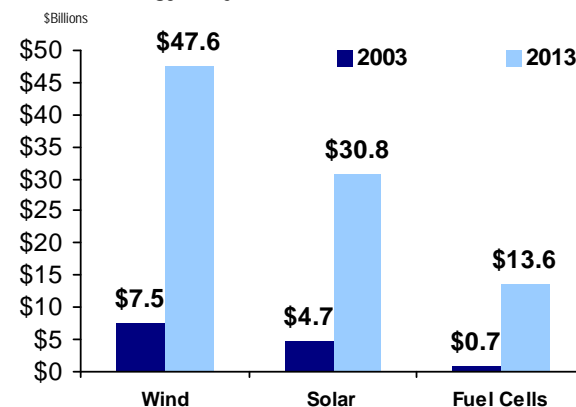
- Currently \$700 million market
- Projected to grow to \$14 billion by 2010

Location Criteria

- Public funding
- Technical workforce
- Strong research presence (public or private)
- Affordable flex industrial space
- Local industry-specific permitting in place

The Chairman of the Senate Energy Committee, Senator Domenici of New Mexico, recently put forward a slimmed down version of the unpopular Whitehouse energy bill that maintained significant funding for fuel cell research and development. While the passage of the new bill has been stalled until after the election, some form of energy legislation will be passed that will likely include similar levels of funding for fuel cell development. Senator Domenici's bill would provide over \$2 billion for hydrogen research and development and \$800 million for fuel cell research. The \$2 billion allotted by the legislation for hydrogen research is a bit ambiguous. The funding is directed at hydrogen production, delivery, storage, electric generation, and use in fuel cells. The bill does not explicitly outline specific allocations of the funding, leaving it up to the Department of Energy. This ambiguity provides an opportunity for aggressive research institutions.

Clean Energy Projected Growth



Source: Clean Edge

Fuel Cells in Centralina

The fuel cell target industry represents a great opportunity for the Centralina region. The likelihood that sometime between 2010 and 2015 CATS' Charlotte-to-Mooresville North Corridor line could see the world's very first hydrogen fuel cell powered passenger rail conveyance bodes well for the local fuel cell and hydrogen industries. Even though this planning is in the very early stages starting a dialogue about such an ambitious project is important. UNC Charlotte is pursuing two early research initiatives to complement the Vehicle Projects R&D work and attract Hydrail to North Carolina. The first initiative is the creation of a Hydrail Technology Working Group to address fueling, regulatory, safety and economics issues. The second initiative will study ways to integrate and deploy a combined fueling infrastructure for Hydrail, buses, fleets and eventually personal cars.

Centralina is a member of the National Clean Cities Program, locally represented by the Centralina Clean Fuels Coalition. The program promotes, accelerates, and expands the use of alternative fuels in the transportation sector. Working through locally-based government- industry partnerships, the Clean Cities Program seeks to expand the use of alternatives to traditional fossil fuel consumption. Clean Cities is a federal program designed to accelerate and expand the use of alternative fuel vehicles in communities throughout the country and to provide refueling and maintenance facilities for their operation. The program is sponsored by the U.S. Department of Energy.

EcoVehicle, located in Salisbury, is one of the first independent zero emission transportation manufacturers in the country. The company plans to manufacturer an electric powered vehicle and already has a prototype. The prototype measures 11 feet long and 69 inches high and includes an A-frame suspension, tubular steel construction, rack-and-pinion steering, and everything else one would expect in a traditional automobile. The EcoVehicle plugs into a standard 110 volt electrical outlet for power and can drive 30 miles on a single charge. A full charge lasts seven hours, at a cost of 80 cents in electricity. The battery is expected to last about three years. The car is designed for urban or small town driving and has a top speed of 25 mph.

Charlotte has also been the host city for a variety of industry conferences including the 2002 Conference on Hybrid Power Systems which was sponsored by the Department of Energy and the United Nations, marketing the city and area to a wide range of industry professionals.

Additional Industry Requirements

Public-Private Sector Cooperation. Fuel cell companies locate where they have strong support from government agencies, area universities, and local economic development officials. This has played a large part in the development of the fuel cell industry in California and New Mexico. As the industry moves from the early research stages into development and manufacturing, communities across the nation will have an opportunity to develop this cluster.

Workforce. The fuel cell industry is still small, so employees have traditionally been recruited away from more established industries. Complementary industries are therefore important in building a local workforce. They are also important because much of the work on fuel cells originates from division of companies in other fields. Centralina’s high tech workforce and existing automotive industry will be attractive to relocating fuel cell firms.

Flex Industrial Space. Fuel cell facilities carry out a number of duties. Besides being the company’s office space, they also include lab space and at least a small manufacturing bay where prototypes are built and tested. While fuel cell companies are not large manufacturers, their manufacturing needs precludes them from locating downtown. Rather, fuel cell companies show a strong preference for industrial parks. The Centralina region offers plenty of affordable flex industrial space and is well suited to absorb the region’s fuel cell industry growth.

Competitive Assets - Fuel Cells

Asset	Centralina
Public-Private Cooperation	✓
Technical Workforce	✓
Affordable industrial space	✓
Low cost of doing business	✓

Biotech/Bioinformatics

Industry Trends

Biotech is the only major tech sector with employment growth between 2001 and 2003. Global sales of prescription drugs currently top \$300 billion, with the U.S., Japan and Europe accounting for 80 percent of all sales. According to the Bureau of Labor Statistics, drug manufacturing will add 75,000 jobs between 2000 and 2010, while the sector's output will grow even faster at an average annual rate of 5.6 percent (in real terms). Medical equipment is expected to add another 50,000 jobs in the same period, a growth rate of 1.6 percent. Additionally, research and testing facilities are expected to net an additional 227,000 jobs between 2002 and 2012, growing at an annual rate of 2 percent. All told, biotechnology should add nearly 400,000 jobs throughout the current decade across the United States. Still, biotechnology is an industry in its infancy, still relatively small even after a decade of substantial growth. Today, less than 50 industry companies have over 1,000 employees and none rank among the top 25 employers in the largest biotech metros.

Major markets for biotechnology products include: agriculture, energy, environmental, food processing, government, manufacturing process, medical, pharmaceuticals, public utilities and research. The U.S. government will also demand biomedical products to support efforts to detect and protect against chemical and biological agents.

Competition for biotech firms will be fierce, as almost every major metro includes it among its list of target industries. The Brookings Institute has reported that out of 77 local and 36 state economic development agencies surveyed 83 percent list biotechnology as one of their top two target industries. Biotech and health services, however, will likely experience growth in all markets, creating opportunities for those communities best prepared. Successful communities will be those are able to target specific markets within the biotech field. Currently, most biotechnology clusters are located in the Northeast (New Jersey and Boston), the Research Triangle, and California (San Francisco and San Diego). New contenders in recent years include Central Texas, Minneapolis and Salt Lake City.

An emerging field within biotech is bioinformatics. Bioinformatics is the marriage of molecular biology and high-speed computing to develop databases and algorithms that enhance the understanding of complex biological interactions and processes. This niche within biotechnology has recently yielded the completion of the Human Genome Project, in which all 80,000 human genes were identified and catalogued. Current projects in this niche capitalize on the use of high-speed algorithms and databases to collect and analyze biological data to accelerate the discovery of new drugs.

Biotech

NAICS Definition

- 3254 Pharmaceutical Mfg
- 3391 Medical Equipment & Supplies Mfg
- 4234, 4242 Medical & Pharmaceutical Wholesale
- 54171 Life Sciences R&D
- 621-623 Hospitals & Health Care Facilities

Industry Employment

- 12 million employed - US

Wage Rates

- \$18 an hour in the US

Location Criteria

- Educated workforce
- Access to capital
- Affordable lab space
- Major research presence

The bioinformatics industry will report revenues in excess \$950 million in 2004, which are forecasted to grow to \$1.6 billion by 2006. Within bioinformatics, the market for bioinformatics analytical software is estimated to reach \$240 million in 2004 and growth will continue at an annual rate of 9.3% to reach approximately \$375 million by 2009.

Biodefense research is also one of the fastest growing niche markets in the biotech and bioinformatics industry. Government spending on biodefense research is likely to continue to increase at a rate exceeding investment in other areas of biological research and development, and is attracting both scientists and the companies who support them. President Bush's authorization of the Project BioShield Act is but one of many government initiatives to improve the country's defenses against bioterrorism.

The development of the bioinformatics sector could spark other growth within the cluster. One of the fastest growing subsets of bioinformatics is drug identification. A thriving bioinformatics cluster could attract pharmaceutical firms to the region. This would round out and diversify the cluster, extending it from being purely R&D-dependent to encompassing manufacturing as well. Manufacturing would be a very important addition because of its strong backward linkages into the economy established by attracting suppliers and business services.

Bioinformatics in Centralina

The presence, both locally and regionally, of a biotech industry is essential for the development of the bioinformatics cluster. While Centralina lacks the traditional medical research infrastructure, such as a major research hospital, the area has an established local biotech industry, including a large number of medical equipment and pharmaceutical manufacturers. Centralina will also benefit from North Carolina's reputation as a biotech location, particularly the Raleigh area.

The proposed \$35 million bioinformatics research center at UNCC will be one of the first centers of its kind in the nation and an invaluable tool in developing this industry. UNCC will develop the center using state funds recently appropriated. UNCC has doctorate programs in both biology and information technology and has expertise in software, optics, and computer modeling.

The Canon Research Center on the campus of the Carolinas Medical Center in downtown Charlotte conducts research in biomedical fields. The center's research budget is \$10 million, which comes from a combination of federal, state, and private industry funding. Research conducted at the center resulted in a venture funded biotech company located in Charlotte.

The region's medical manufacturing base, which includes 150 companies and 6,000 employees, will also be an asset in recruiting and developing the biotech and bioinformatics industries.

Additional Industry Requirements

Quality of Life. Biotech workers are generally younger, with a stronger preference for “fun” towns. These workers, much like the companies they work for, will be attracted to the low cost living and vibrant community in Centralina. This demographic is also more likely to start their own company, leading to a large number of “home grown” companies typical of high tech towns.

Workforce. The industry has a number of occupations that are unique, or more critical than others in the economy. These include biochemists, biophysicists, and materials scientists that are often involved in research and development; electronics engineers and software developers involved in the production of applications; and technical writers and animators that ensure products are user-friendly and fulfill their intended uses.

Local Educational Institutions. University research is one of the most important drivers of technology site selection decisions, particularly for small and mid-size firms. In Centralina, UNCC not only supplies knowledge-based workers and research, but also plants the entrepreneurial seeds as professors and students often transform technologies into start-up companies. UNCC’s office of technology transfer ranks near the top nationally in a wide range of metrics.

Financial Needs. Less than 1 out of every 1,000 biotech related patents produces a successful commercial innovation, and it can take more than a decade for a product to come to market. Often small biotech firms are highly dependant upon a single drug or product that could fail or be tied up in a lengthy FDA approval process, which is a considerable risk. Therefore biotech firms need financial backers that understand the timelines and risks of the industry and have long-term funds available for investment. Venture capital in the Centralina region has been in steady decline 2000, reflecting national trends. Area companies received nearly \$500 million in venture funding in 2000, but less than \$50 million in 2003, a decline much steeper than national averages. Venture capitalists like to fund companies they are familiar with, and thus generally pick local companies. For Centralina companies, this means that they compete with Research Triangle firms for regional venture investments.

Competitive Assets - Biotech

Asset	Centralina
Regional Research Strength	✓
Educated Workforce	✓
Access to capital	✓
Available office and lab space	✓

Optoelectronics

Industry Trends

Just as electronics did for the 20th century, optics is expected to revolutionize the 21st century. In the next five years, more and more optical products will play a key part in products and applications that are currently performed by electronics. Optics is also enabling a wide variety of new therapies in medicine, such as laser and arthroscopic surgery. Within optics, the optoelectronics market is expected to grow faster than the industry.

Known as the “science of light,” optoelectronics research is focused on the emission, transmission, deflection, amplification and detection of light by optical components and instruments, lasers and other light sources, fiber optics, electro-optical instrumentation, and related electronics.

The economic slowdown and particularly the technology sector’s downturn negatively impacted the optoelectronics market, resulting in reduced demand from end-user industries such as computer manufacturers and the telecommunication industry. The industry is still left with over-capacity that has also led to price erosion and industry consolidation. Industry revenues reached \$4.23 billion in 2002, compared to \$4.63 billion in 1999. Projected growth is expected to coincide with the renewed expansion of the semiconductor market over the next four years. The Semiconductor Industry Association forecasts device sales to the optoelectronics industry to grow by 37% in 2004 and 23% in 2005.

Total revenues for the optoelectronics market will reach \$7.23 billion in 2009 as newer applications are introduced that use optoelectronic devices, especially in the telecommunications industry. Shrinking product sizes and a need for reduced power consumption will continue to drive sales growth of optoelectronic components in the telecom and computer industries.

Light emitting diodes accounted for 25.3% of \$4.23 billion in industry revenues in 2002, and optocouplers represented 21.7% of total revenues. The convergence of faster bandwidth and telecom is expected to drive growth in optocoupler-device revenues through 2009.

Optoelectronics

Cluster Definition

- 333314 Optical Instruments
- 333315 Photographic Equipment Mfg.
- 334112 Computer Storage Device Mfg
- 335921 Fiber Optic Cable Mfg.
- 334612 CD/DVD Reproducing

Industry Profile

- \$56 billion in revenues

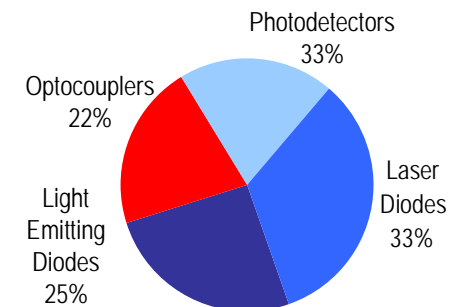
Wage Rates

- \$21 an hour in the US

Location Criteria

- Regional research strength
- Proximity to university engineering programs
- Strong technical workforce
- Good local telecom

Optoelectronics Industry, 2002



Source: Frost and Sullivan; Optoelectronics Report

Photodetectors accounted for 20.3% of optics revenues in 2002. The growth rates in the LED and optocoupler segments are projected to be comparatively higher than the photodetector market. Photodetectors are projected to lose market share of the total optoelectronics by the end of the forecast period, although it is believed that the effect on the revenue growth of the photodetector market will be minimal. Laser diodes represented 32.7% of the industry in 2002. It is projected that laser diodes will find some extended application in fiber-optic communications that will help increase the segment's share of the global OE market. High-bandwidth Internet proliferation coupled with greater use of medical electronics in network environments will drive revenue growth of the OE market worldwide.

Optoelectronics Industry in Centralina

Centralina has multiple research centers focused on the optics industry but UNCC's Center for Optoelectronics and Optical Communications is the largest and most important. The center, scheduled to move into a \$24 million facility in 2005, acts as a research center for the industry, a link between the local industry and the university, and provides infrastructure to researchers and private companies. A primary focus of research at the center is "intelligent" integrated optics. This area will allow for remote reconfiguration, data provisioning, wavelength conversion and data routing. Developmental research areas include light sources, optical amplifiers and dynamic interconnects. In the application of such devices, our research encompasses the fabrication, characterization and packaging of new components for chip-to-chip and board-to-board optical connections.

The Center's lab space, equipment, and technician support are available to private sector firms on an hourly basis and include 3,000 feet of clean room space and a wide variety of optical equipment. The new facility will provide space for more than 30 optics faculty and was awarded \$8 million from the federal government through DARPA for state-of-the-art optical fabrication and characterization tools.

Additional Industry Requirements

Workforce. Access to a pool of highly educated, talented, and technically skilled workers is vital to any technology company. Attracting and retaining a quality workforce is more important in high tech fields than other fields. Workers tend to be highly mobile, meaning that they are willing to venture into a community, but they are also easily swayed away. In an industry with high turnover, technology workers seek communities with numerous employment options. Availability of local technical graduates is important for technology companies, especially growing ones. Local technical graduates help companies manage labor costs that are by far the largest expenditure of most high tech service firms. Centralina's young, well educated workforce and academic infrastructure will meet the needs of optoelectronic firms.

Research & Development. R&D is heavily emphasized in the optics industry. There is an acute shortage of research dollars and skilled workers. Locating near a research university can allow start-ups to access cheap lab space, technology transfer opportunities, and potential employees. University research is one of the most important drivers of technology site selection decisions, particularly for small and mid-size firms. Many of the nation's most successful technology firms located in cities with university-level research activity. UNCC consistently ranks near the top of all schools in variety of technology transfer metrics and

will be seen as an enormous benefit to relocating technology firms. This is especially true of those in the optics industry due to the Center for Optoelectronics and Optical Communications.

Business Climate / Structural Assets. Corporate site selection is increasingly affected by tax environments, and more than ever, companies seek predictability and avoidance of risk in their tax burden. Most tax and incentives decisions are made by capital- or research-intensive industries such as semiconductor manufacturing, electronics manufacturing, and biotech research. Tax liabilities can vary greatly from state to state. While some states have high property taxes, which greatly affect manufacturers, they often compensate with accelerated depreciation schedules for technology equipment or investment and R&D tax credits on income or purchases. Income tax apportionment formulas can also vary widely from state to state. States with triple-factor-sales formulas for corporate income heavily favor technology companies who export a majority of their products or services out of state. Labor-intensive firms should closely monitor the impact of income taxes in many states. Due to the complexity and variability of tax systems across the U.S., technology companies should employ the services of a talented site selector or accounting firm to estimate the impact of their location decision. Often, this analysis is done too late in the process to alter a decision or be used as a basis for incentives negotiations.

Competitive Assets - Optics

Asset	Centralina
Regional Research Strength	✓
Technical workforce	✓
Low costs of doing business	✓
Strong telecom	✓

Automotive

Industry Trends

The automotive industry's primary functions are to design, manufacture, and distribute transportation vehicles. Automotive suppliers provide engine parts, electrical systems, seats, and chassis components to auto assembly plants.

The automotive industry in the United States has over 1.3 million direct employees and is responsible for over \$240 billion in wages. Annual sales of automotive suppliers now top \$800 billion. Auto sales have surpassed 16 million new vehicles thanks to low interest rate financing and record rebates on new purchases. Domestic growth for the industry is projected to remain modest, closely following population growth levels.

The industry has experienced migration of domestic automotive factories from the Michigan area toward the Southeastern United States. To mitigate currency risks and bypass U.S. tariffs of up to 25%, foreign companies such as Honda, Toyota, Nissan, BMW, Mercedes, and Hyundai now have located factories in the U.S. The Southeast is attractive due to lower prevailing wages and low unionization rates. Another industry trend is for large automotive companies to use independent component companies as their suppliers. GM and Ford have both spun off their internal component groups into independent firms.

Competition for automotive plants is fierce, due to the large number of quality blue collar and white-collar jobs associated with automotive manufacturing. Proximity to plant customers is vital to modern automotive supplier firms. Nationally, at least two auto companies are conducting searches for a future site plant. Specifically Toyota is expanding Prius production due to high demand and is considering a new facility. Another Japanese manufacturer is rumored to be looking to add a new U.S. facility in the South Central to Southeast U.S. Centralina should continue to target both automotive manufacturers and their suppliers.

Also within the automotive industry is NASCAR, one of the nation's fastest growing sports. NASCAR, created in 1948, now draws the second largest audience in sports after the NFL. NASCAR is a multi-billion dollar industry that is still expanding into new markets. The company has become a juggernaut with TV deals worth \$2.8 billion, ticket sales at \$1 billion, merchandise sales of \$2 billion, and corporate sponsorships worth \$1 billion annually.

Automotive

NAICS Definition

- 326 Plastics & Rubber Products
- 3336 Engine & Turbine Mfg
- 3353 Electrical Equipment
- 336 Transportation Equipment
- 332 Fabricated Metal Products
- 71121 Spectator Sports

Industry Employment

- 1.7 million employed - US

Wage Rates

- \$22 an hour in the US

Location Criteria

- Proximity to customer base
- Proximity to good technical training institutions
- Large affordable tracts of land
- Good affordable power supply

Automotive Industry in Centralina

Centralina has a large existing transportation equipment cluster that employs over 11,000 workers. The area also benefits from close proximity to the BMW manufacturing facility in Greenville, South Carolina, which is only 75 miles away.

Centralina is home to the NASCAR industry. NASCAR’s research and development facility, which also houses many corporate functions, is in Centralina. The greater region is home to 90% of all NASCAR teams and the industry produces a \$2 billion economic impact annually for the state.

UNCC’s automotive and motorsports engineering program has been a huge success and benefits all industry firms. The program is a concentration in the school’s mechanical engineering program and is unique in the country. 100 students are currently enrolled.

Additional Industry Requirements

Automotive suppliers operate in a low margin industry and are always concerned with a community’s recurring cost structure. They will also need excellent transportation infrastructure and a location within a reasonable distance of the final assembly line. Centralina meets all the needs of relocating automotive manufacturers and suppliers and should aggressively target this industry.

Economic Conditions. Increasingly, automotive firms are proponents of just-in time manufacturing. These firms prefer that suppliers locate within 200 miles of the main assembly plant, but not so close as to compete for the same workers. As of late, the industry has been gravitating towards more rural areas in the South where wages are lower, unions are less prevalent, and growth is occurring.

Structural Assets. Suppliers will be concerned about an area’s recurring cost structure more than many other industries. Auto suppliers use large amounts of electricity, natural gas, and water and need an affordable, reliable supply. Suppliers also need large, unencumbered land tracts and desire low property taxes due to the large amount of land and building space they use. Suppliers prefer to locate on major highways with direct access to the main assembly plant. Rail is often a key requirement for large component facilities.

Cost of Doing Business. The automotive industry requires a low cost of doing business including low prevailing wage rates, cheap electricity, and favorable tax treatment. Because of their large impact on the communities in which they located, auto firms and their suppliers have become adept at negotiating large incentive packages. Tax systems can affect plants greatly, and auto manufacturers tend to look for areas with low property tax rates and sizable income tax credits. Many recent auto projects have also received significant workforce training credits in addition to sizable tax incentives. Few industries receive more financial incentives.

Competitive Assets - Automotive

Asset	Centralina
Industry cluster	✓
Low structural costs	✓
Right to work state	✓
Large land tracts	✓

Software Development

Industry Trends

The software industry is comprised of computer programming services, prepackaged software, data processing, and information retrieval services. Software is a group of instructions, understood by computers, which allow computers to complete desired tasks. Demand for software is driven by efficiencies derived through computer automation or in the case of the gaming industry, through entertainment value.

Software firms now have worldwide revenues in excess of \$200 billion. Approximately half of these sales come from software applications, development tools and infrastructure software splitting the remaining market. Major areas of growth are in data security and business intelligence. Due to the low start-up costs associated with a software firm, many small software companies exist. However, the industry is quickly maturing and many analysts forecast consolidation of these firms. Large software companies such as Microsoft, IBM, and Oracle have already bought many smaller companies. Other major trends in the software industry include outsourcing programming duties to low cost regions and the “open source” movement. China, India, and Russia have low cost computer scientists, ensuring further investment in these regions. The “open source” movement has gained momentum behind the Linux operating system. Open source refers to the practice of allowing free access to the building blocks of a computer program, which in turn multiplies the number of programmers who can work on building solutions around that program.

The software industry was hit hard during the technology downturn but recovered more quickly than the manufacturing side of the IT industry. Software is continually evolving and growth seems to come from new areas every few years. Recently, security software revenues have jumped considerably as more viruses and hackers attack business and individuals alike.

Overall security software revenues are projected to grow by nearly \$2 billion, or nearly 50%, by 2006. The security segment is also more disparate than the overall software market, with segment leading firms located from Washington to Israel.

The applications software market will also see healthy growth, although not as

Software Development

NAICS Definition

- 511210 Software Publishers
- 541511 Computer Programming Services
- 541512 Computer Systems Design Services
- 541519 Computer Related Services
- 7372 Prepackaged Software

Industry Employment

- 240k employed - US

Wage Rates

- \$39 an hour in the US

Location Criteria

- Educated workforce
- Access to capital
- Research incubator
- Excellent quality of life

Applications Software Market

	2003	2004	2005	2006
CRM	\$2.4	\$2.4	\$2.5	\$2.7
ERP	\$4.6	\$4.7	\$4.9	\$5.1
SCM	\$1.9	\$1.9	\$2.0	\$2.2
Total	\$8.9	\$9.0	\$9.4	\$10.0

Source: Gartner

Security Software Market

	2003	2004	2005	2006
Infrastructure	\$2.8	\$3.3	\$3.7	\$4.2
Administration	\$1.1	\$1.2	\$1.4	\$1.6
Security All	\$3.9	\$4.5	\$5.1	\$5.8

Source: Gartner

substantial as the security market. Total applications software revenue is projected to grow by \$1.1 billion by 2006. Centralina should focus on recruiting and developing the software and firmware development firms with application targeted to the financial services industry.

Software firms are located in nearly every city in the United States. Major centers for the software industry are Seattle, San Jose, Washington D.C., Boston, Austin, New York, Raleigh, and Boulder.

Centralina lacks a developed software industry and the area's cluster rating is far below the national average, as is North Carolina's in general. Most financial service software used by area companies is developed outside the region. The area has many successful companies such as Venetica, Xpient, TIAA-CREF, and IBM. The cluster has never fully developed though, and Charlotte is not considered a software locale.

Additional Industry Requirements

Structural Assets. Software firms require reliable utility service at affordable rates. Many industry firms will require access to a SONET ring and numerous T-1 lines. Software companies will also require high-end office space.

Workforce. As with other technology industries software is entirely dependant on its workers. Companies need highly educated, talented, and technically skilled workers. The area's workforce will meet the needs of software companies although some firms may find an underrepresented workforce.

Research & Development. Due to the relatively low cost of computers, computer software development can occur nearly anywhere. Many significant developments are produced by hobbyists and entrepreneurs as well as by universities and corporations. Due to the large amount of proprietary information involved software firms keep all R&D in house. Microsoft, for example, has never revealed the source code for its Windows operating system effectively suppressing any outside research. University research can be vital for training workers as well as producing new technologies.

Cost of Doing Business. Software and Internet companies' primary costs are computer and networking equipment, and employee salaries. Electricity and rental space are also a primary concern. The Internet makes software distribution very cheap and efficient so transportation costs are typically not an issue. Software firms pay high wages, employ highly skilled workers, and are extremely low impact operations and as such they are highly coveted by communities.

Competitive Assets - Software Development

Asset	Centralina
Educated workforce	✓
Access to capital	✓
Area research	✓
Excellent quality of life	✓

Defense/Advanced Security

Industry Trends

The U.S. security market is broad and includes market segments such as surveillance and monitoring, access control, biometrics, computer security, fire/burglar alarms, and home automation, just to name a few. The industry has received greater recognition due to the appalling attacks of September 11th. Many security users, including the federal government, have increased purchases of equipment and services to beef up protection of vital assets. The advanced security industry does not include traditional security measures such as guards.

The overall U.S. security market is a multi-billion industry with a double-digit growth rate. The industry is divided into three main end-use segments: commercial, government, and residential. In 2002 the U.S. security market had record revenues of \$23.4 billion. Industry consultants the Freedonia Group expect revenue to more than double to over \$48 billion by 2009. Revenue growth is just as fast outside the United States. Western Europe and Japan are the largest markets outside the U.S., but East Asia, Latin America, and the Middle East have the strongest revenue growth.

Commercial security purchases will grow considerably from \$14 billion in 2002 to \$29 billion in 2009. A combination for decreasing prices and increased demand from industrial and utility users is driving this growth. The fastest growing commercial markets are healthcare and financial services due to increased crime and corporate fraud.

Government spending on security increased dramatically in the aftermath of the 9/11 attacks. The U.S. government spent \$7.5 billion on security in 2002, that number rising to \$16 billion by 2009. Terrorism fears are behind the increase in government spending as state and federal authorities attempt to secure the nation's vital facilities. While the government market is not the largest security market, it is the most advanced.

The residential security market is the smallest of the three main segments with 2002 sales of \$1.7 billion. Growth is strong though, and 2009 revenues are forecasted at \$3.2 billion. The residential market is focused on home security systems and other relatively low-tech aspects of the security market.

Defense/Advanced Security

Cluster Definition

334119	Biometrics system input device
3355999	Electrical Equipment Manufacturing
541380	Testing Laboratories
5417	Scientific Research and Development
56162	Security Systems Services
561612	Security Patrol Services

Industry Profile

- \$23.4 billion sales

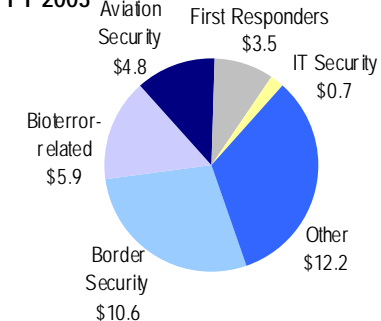
Wage Rates

- \$52,000 avg. salary

Location Criteria

- Educated, affordable workforce
- Research institutions
- High tech cluster

Homeland Security Funding, FY 2003



Source: Morgan Keegan Research

Centralina has a moderately sized defense industry with both large industrial firms and small service companies. Goodrich, based in Charlotte, supplies goods and service to the aerospace and defense industries. The company is a major supplier to the Defense Department and had 2003 revenues in excess of \$4 billion.

UNCC also has ties to the Defense Department and recently secured \$8 million in funding from DARPA for the Center for Optoelectronics.

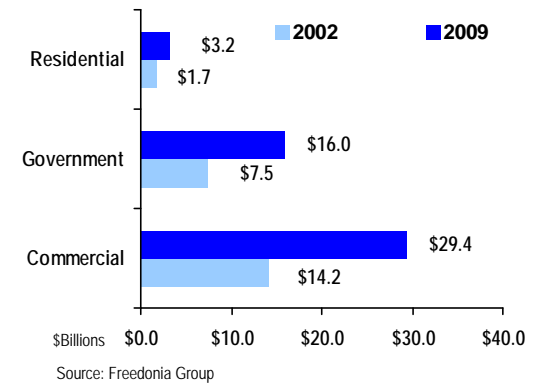
Additional Security Requirements

Workforce Requirements. The defense and security industry needs a highly technical workforce. About one in four employees are in computer-related occupations, most notably software engineers, computer programmers, and computer systems analysts. This industry, after all, is as much about preserving and protecting data as it is people.

Structural Requirements. Defense and Security companies are the epitome of mission critical processes. Their mission is to secure the data and resources of business and government, and thus must be highly secure themselves. They need electricity that is beyond reliable. Sites must have a redundant power supply as well as an on-site generator. Electric power in Centralina has been mentioned as an area strength.

Research & Development. R&D in government data security has increased dramatically since the increased terrorist concerns following the September 11th attacks. Virtually every government defense agency funds major research projects, including the Departments of Defense and Homeland Security, all branches of the US military, and the National Institutes of Health. Widely spread computer viruses have led the private sector to increase product development in network security. Because the nature of the industry involves staying one step ahead of terrorists and hackers, R&D will always be an important part of this industry.

Security Market by End Use Segment



Competitive Assets - Defense/Advanced Security

Asset	Centralina
Defense presence	✓
High tech cluster	✓
Educated workforce	✓

Recommendations from Other CEDS Projects

ANSON COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Infrastructure Development	
US Hwy 74	A much needed major transportation improvement is the connection of I-95 to I-485 in Charlotte along US Highway 74. US Highway 74 is a major east-west connector from the State Port of Wilmington to the Tennessee border. The high way is recognized by the NC Dept of Transportation as an Intrastate Corridor and a Key Economic Development High way from US17 in Brunswick County (Wilmington) to I-26 in Polk County near Hendersonville. The upgrade of this Intrastate Connector is vitally important to the economy of the region and state as a whole. 80 percent of all manufacturers in the US are located within 10 miles of an interstate highway while 50 percent are located within 2 miles. The lack of an interstate connector for the District is costing the region jobs in manufacturing and commercial sector jobs. US 74 also serves as the most direct east-west connector from the Port of Wilmington to the Charlotte, the most populous city in the state. An upgrade of this conector could result in increase port traffic in Wilmington allowing for growth in distribution employment for the
US Hwy 74	New US 74 upgrade projects have been currently identified in the Transportation Improvement Plan for 2004-2010 for three state divisions of the NCDOT, including Division 10 (Anson, Cabarrus, Stanly, Union). All of these projects should be identified and the value of their development communicated by their economic development agencies as a whole to their respective elected officials.
Monroe Bypass	The construction of the monroe bypass on US 74 in neighboring Union County to clear congestion on the main transportation service artery to the west
Widen Lanes of US 52	Widening to four lanes of US 52 from US 74 to the South Carolina state line
Regional Wastewater Treatment Facility	Cabarrus, Union, and Mecklenburg Counties have been planning to build a regional wastewater treatment plant to serve eastern Mecklenburg, northwestern Union, and eastern Cabarrus Counties. The proposed site for the wastewater treatment plant is in Union County at the confluence of the Rocky River and Goose Creek. Environmental issues have caused problems.
Expansion / rerouting of US Highway 52	Conceptual planning has been envisioned for the expansion / rerouting of US Highway 52 from Albemarle to Salisbury. This plan is designed to upgrade US Highway 52 to a limited access, 4-lane highway to improve access from Albemarle to I-85 in Rowan County. The development of this project is important as a regional initiative affecting the economic viability of both Cabarrus and Stanly Counties through commercial and industrial development possibilities.

CABARRUS COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Infrastructure Development	
Improve US 74	New US 74 upgrade projects have been currently identified in the Transportation Improvement Plan for 2004-2010 for three state divisions of the NCDOT, including Division 10 (Anson, Cabarrus, Stanly, Union). All of these projects should be identified and the value of their development communicated by their economic development agencies as a whole to their respective elected officials.
Upgrade US 74	Upgrade US 74 to Interstate quality between Charlotte and Interstate 95 in Robeson County.
Upgrade Highway 220	Upgrade Highway 220 to Interstate quality, connecting Greensboro to Interstate 74 near Rockingham. Establish an Interstate quality connection to Interstate 74 in Rockingham.
1000-acre mega site	In conjunction with the expansion and rerouting of US Highway 52, a 1000-acre mega site has been identified in northeastern Cabarrus County as a development possibility. This site would provide a rail-served property with access to high-voltage power transmission lines as a potential for major industrial development projects such as an automotive assembly plant. The impact on the area would be felt through job creation and increased tax base.

GASTON COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Economic Development	
Land for Industrial Development	Some combination of zoning in key locations, incentives for private sector procurement for the long-term, and public sector land assembly and acquisition. Within Gaston County, new industrial park locations should be identified, primarily along US-321 North and I-85 West, and land will also need to be identified and secured at one or more key interchanges along the proposed Garden Parkway in the southern part of the county. A more immediate priority would be the development of a high-density warehouse-only distribution park on the east of the county to take advantage of the completion of I-485 and I-85 scheduled for early 2004.
Gastonia Tech Park at Gaston College	A priority project is the completion of the Gastonia Technology Park adjacent to Gaston College just off US-321. This is a 380 acre site envisioned as being subdivided into some 15 lots of varying sizes from six to fifty acres, but still requires significant investment in internal roads, services, and landscaping. Already some \$6 million has been spent on the first phase, where there is currently one occupant, Pass & Seymour, Legrand, on a 41 acre site with a 155,000 square feet plant, employing 125 people. The intention is to recruit high quality manufacturing companies that need larger sites and that would create training, cooperation, and education programs with the college.
Downtown Revitalization	Uptown Shelby Association supports a focus on Uptown Shelby: increasing the tax base by taking unoccupied or underutilized buildings and converting them to revenue producing businesses; increasing the retail mix so that dollars that would be spent elsewhere are circulated locally, encouraging much needed bulding maintenance, and facade rehabilitations; increasing tourism and tourism-related dollars.
Infrastructure Development	
Highway infrastructure	Perform a land use study for each proposed Garden Parkway interchange, and pursue an interstate designation for the proposed Garden Parkway. Consider extending the proposed Garden Parkway to NC 16 in the northeast County qudrant. Pursue an interstate designation for US 321 from I-85 to I-40. Request NCDOT to redevelop the I-85/US-321 interchange to meet current Interstate Highway design standards. Perform a feasibility study for US 29/74 to evaluate improvements in traffic flow and route aesthetics, and improvement/widening to bridges that traverse the Catawba River and South Fork of the Catawba River. Evaluate NC 279 widening from Cheryville to US 321 to enhance US 321 access.
Utility infrastructure	Develop a plan for extending municipal wastewater service outside of the Belmon, Cramerton, Gastonia, and Mount Holly municipalities. Priority service areas are the proposed garden Parkway corridor and northeast quadrant of the Couty. Water and wasterwater service area expansions should consider economic development potential relative to the required capital expenditure. Pursue funding restoration to the Gaston County Water and Sewer Disrict, which would enable service extensions to unincorporated areas of the County.
Real Estate	For industrial parks located within municipal boundaries, Gaston County should develop a program for multi-jurisdictional funding of infrastructure and road improvements to maintain its competitive land prices. Gaston should secure and allocate funding for the road extension into Tech Park to allow for small parcel sales (10 acres and under). Gaston should develop a high density warehouse-only distribution park (as in industry cluster) on the east side of Gaston County to compete with west Mecklenburg County locations. This should be considered a priority given the pending completion of I-485 to I-85 by early 2004.
Marketing and Communications	
	Gaston should develop a complete set of information about the county's demographics, sites, buildings, educational offerings, workforce, quality of life, government and taaxes, incentives, and other details often require by prospects, available on the website. Later should come a marketing brochure on each developed park and major greenfield site, with all pertinent stistics, photos, site plans and other contact information. An up-to-date website is necessary. Also, a strong graphic identity system, including a logo, stationery, binders, and other printed materials should be developed.

Gaston County's Capital Needs Over the Immediate Future

- I. Economic Development: Land and Infrastructure
 - a. \$7 million for expanding our Tech Park by 350 acres and providing water and sewer.
 - b. \$10 million for acquiring 1,000 undeveloped acres along Interstate I-85 for future industrial park.
 - c. \$10 to \$15 million for water and sewer along the new proposed Garden Parkway Corridor (engineering study found the total cost for the expansion to be \$200 million).
 - d. \$2 million per year for assistance with municipal utility system expansions into existing industrial parks.

- II. Public Education
 - a. \$3.5 million per year debt service for the \$56.5 million yet to be issued portion of an already approved \$89 million school bond.
 - b. \$6.1 million per year for new debt service of a yet to be approved \$100 million bond issue.

- III. Public Safety
 - a. \$10 million for jail expansion—although we built a new jail in 1997 and have not seen an increase in crime rate, state imposed mandatory sentencing has dramatically changed our initial projections.
 - b. \$2.4 million for new Police building, just opened this month, financed with a three-year installment purchase, payments of \$0.8 million per year.
 - c. \$1.2 million per year for re-farming of telecommunication system to comply with FCC mandates for bandwidth. Total system changeover cost of \$8.6 million.
 - d. \$2.2 million for new telecommunications software.

- IV. Public Buildings
 - a. \$5.5 million for new County Offices—construction underway, three year installment payments of just under \$2 million.
 - b. \$7 million for offices for Elections, Probation, Parole, School Administration, and Animal Control. Projected annual payments of \$2.5 million.

LINCOLN COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Infrastructure Development	
Regional water distribution system	Lincoln County is convinced that water interconnections with other jurisdictions can only strengthen its ability to provide water to its customers and share with others. The new project involves increasing connections by other governmental entities to the Lincoln County Water System. Lincoln County is currently pursuing a connection with the City of Hickory and Catawba County on Cat Square Road whereby it could purchase water from Hickory. That connection would strengthen the regional supply system and would enhance ability to supply water to Lincolnton or to High Schools in time of need. Lincoln County has also talked with Hickory concerning a connection on NC 150 at NC 16, which would allow water to flow either way.
NC 150 Improvement Feasibility Study	This project is currently in the NCDOT Transportation Improvement Program as an unfunded project. Expediting the completion of the feasibility study would develop a strategy in which to relieve congestion and decrease travel times between I-77 and US 321, promote economic development along this corridor and increase potential employment opportunities.
Hwy 16 Improvement Study	A new four-lane Highway 16 is being built to interstate standards through eastern Lincoln County. These improvements could continue but need to be examined to determine the feasibility.
Catawba River Sediment Removal Project	Sediment is a critical issue in the Catawba River. The WPCOG has been working with an engineer and Caldwell County to look at several aspects including loss of storage capacity in lakes due to sediment in the river. A demonstration cove in Lake Hickory has been identified and a \$450,000 grant is needed to implement the grant.
Brownfield/Vacant Building Survey	The need to rehabilitate sites and vacant buildings that closed because of the current economic situation is critical. Funds are needed to tear down, rehabilitate, reuse, and market these sites. A regional inventory of brownfield sites is needed. Brownfield money is available and an inventory of brownfields is another example of a regional project.
Fiber Optic Gap Analysis	The NC Rural Center has funds available to identify major corridors in the region that do not have fiber optics.
Development Corridor Plans	Identify transportation corridors as the main focus for future planned development.
Mega-Development Program	The plan calls for a mega site development that would put Future Forward in competition with other parts of the U.S. Multiple counties could do incremental financing with a phased option to purchase.

Mecklenburg County

FY2005 - 2009 Unfunded Project Requests

<u>PROJECT TITLE</u>	<u>5-YEAR TOTAL</u>
<u>Critical Projects (Related to Council Priorities and Adopted Plans)</u>	
Neighborhood Improvements Program (partially funded)	\$45,000,000
Sidewalk Program (partially funded)	\$21,000,000
Statesville Road Widening (I-85 to Sunset)	\$16,200,000
Rea Road Widening	\$11,700,000
Idlewild Road Widening	\$12,000,000
Harris Boulevard/Milton Road Intersection--Planning	\$500,000
Eastway/Central Intersection	\$4,500,000
Plaza/Sugar Creek Intersection	\$6,000,000
Beatties Ford Road Widening--Planning (Capps Hill Mine to Lakeview)	\$8,000,000
Loganville Drive (Prosperity Church Road to Prosperity Village Road)	\$7,500,000
Prosperity Church Road (Loganville Drive to Prosperity Village Road)	\$8,000,000
Prosperity Ridge Road (Panthersville Dr. to Prosperity Church Road)	\$8,000,000
Sharon Amity/Central Intersection	\$5,000,000
Old Steele Creek/West Boulevard Intersection	\$3,500,000
Community House Bridge Replacement	\$9,500,000
Arterial Signal Systems (partially funded)	\$3,000,000
Farm-to-Market to Urban Roads	\$10,000,000
Oakdale/Hovis/Brookshire Intersection	\$3,000,000
Johnson-Oehler/Mallard Ck. Rd. Intersection	\$3,000,000
South Davidson Street Connector	\$1,000,000
Dixie-Berryhill Road Extension	\$10,000,000
Eastland Mall Area Improvements--Phase II	\$5,000,000
Future Transit Station Area Infrastructure	\$10,000,000
Fire Station Renovations (partially funded)	\$1,405,000
Fire Station Number 30 (partially funded in Aviation CIP)	\$1,200,000
NE Equipment Maintenance Facility	\$5,000,000
Animal Control Spay/Neuter Clinic	\$300,000
Total	\$219,305,000

STANLY COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Economic Development	
Prime Power Park at Stanly County Airport	Support the development of the “Prime Power Park” ® through the improvement of necessary utilities such as water and sewer infrastructure to this unique park that seeks to recruit users with mission critical power needs. Continue to improve the facilities of the Stanly County Airport, including terminal expansion, in order to enhance its ability to act as a recruiting magnet for the Prime Power Park. Improve vehicle and rail access to the Prime Power Park.
Development of a “Boutique” Automotive Site	Work to establish a multi-county site that is conducive to the development of a smaller automotive or automotive supplier facility. Such facility should also be promoted to entice Motorsports related testing and/or production facilities.
Agriculture and Heritage Based Tourism	Promote the continued development of Stanly County as a center for heritage based, historic focused tourism, capitalizing on the unique assets of Downtown Albemarle and the County as a whole. Continue the development and marketing of Agricultural and Eco-tourism in Stanly County. Engage in projects to enhance, market, and expand these assets.
Develop a Rail/Truck Transfer Station	Utilizing Stanly County’s multiple rail providers, develop a multimodal transportation facility that will provide rail to truck transfer capabilities for multiple users, thus increasing access to rail service and increasing the utilization of existing infrastructure.
Development of a Multi-county Industrial Park in the Southwestern Portion of the County	With the increasing growth pressures extending from the Greater Mecklenburg urban center, it is critical that Stanly and other fringe counties work to ensure adequate nonresidential development to support the services required by addition residential development. Numerous opportunities exist for potential inter-municipal cooperation.
Preparation of Land Suitable for Industrial Development	With increasing residential growth pressures along the Hwy 24/27 and Hwy 49 Corridors, it is critical that Stanly County identify, engage, and develop opportunities for industrial and other non-residential development in these key areas in order to ensure the continued stability of the County tax base and to take advantage of the close proximity of the greater Charlotte market.
Development of an Eco Tourism related convention/meeting facility	With Morrow Mountain State Park and hundreds of miles of lake shoreline, Stanly County is well suited to host a professional retreat / conference center. Such a facility would allow the greater Charlotte community to engage in strategic planning and team building events in a rural setting without being more than an hour from Uptown Charlotte.

STANLY COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Infrastructure	
Improve US 52 from Interstate 85 to US 74	Conceptual planning has been envisioned for the expansion / rerouting of US Highway 52 from Albemarle to Salisbury. This plan is designed to upgrade US highway 52 to a limited access, 4-lane highway to improve access from Albemarle to I-85 in Rowan County. Additional improvements are also necessary from Albemarle to US 74. The development of this project is important as a regional initiative affecting the economic viability of Anson, Rowan, Cabarrus and Stanly Counties through commercial and industrial development possibilities.
Improve Hwy 24/27 from End of Current Project West of Albemarle to US 220/Future Interstate 73/74	This corridor is Stanly County's main link to the Charlotte region and offers one of the greatest opportunities for future interaction with the developing US 220/Interstate 73/74 corridor. This corridor is currently being expanded to 4 lanes from Locust to just west of Albemarle. This process must be continued through Albemarle to the western edge of the County and then on to US 220/Interstate73/74 in Troy. When completed, the 73/74 interchange will be Albemarle's closest interstate connection.
Improvement to Prime Power / Airport Access	Improvements are necessary to Hwy 740 and Airport Rd. in order to ensure adequate accessibility for industrial and military vehicle traffic. These improvements must include a link to the North East Connector that joins US 52 and Hwy 740 north of Albemarle.
Improve Hwy 49 Throughout Stanly County and North to US 220/Future Interstate 73/74	Hwy 49 is currently being improved to 4 lanes in Cabarrus County. These improvement must be continued through Stanly County and neighboring counties to the intersection of US 220 and US 64 in Asheboro. Portions of this project have already been completed north of Stanly County. This corridor, when improved, will not only provide an important vehicle transportation corridor for Stanly and surrounding Counties, but will also provide a viable alternative for vehicle traffic between Raleigh and Charlotte, relieving pressures on Interstates 40 and 85 as well as providing important emergency planning options for Raleigh and Charlotte.
Improve Hwy 73	Improvement to Hwy 73 will allow Stanly County to better interact with regional partners such as Cabarrus County. This improved infrastructure will also provide a viable transportation link to Interstate 85 and the improved Hwy 49 for the western and northwestern sections of Stanly County
Water Improvements	In order to ensure adequate water availability throughout the region, water infrastructure should be extended along US 52, Hwy 24/27, Hwy 49 and Hwy 73. Such extensions must be designed to interlink with systems in neighboring counties and provide options for inter-municipal water transfers in times of emergency demand.
Sewer Improvements	Provide improved access to wastewater treatment for major industrial corridors and future growth areas. Develop a long-range action plan to improve capacity in the western and southwestern portion of the County. Possible solutions include upgrading and extending infrastructure, the development and/or expansion of sewer treatment facilities, and/or the partnering with neighboring counties to facilitate additional treatment capacity.

STANLY COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Marketing and Communications	
Targeted Marketing Materials	Stanly County must develop a comprehensive series of marketing materials that can be customized to highlight each County municipality and be widely distributed. These materials must also provide industry specific information to potential clients and site selection professionals. Information must be made available in multimedia formats including print, video/DVD, CD-Rom and streaming internet/website presentations. Materials will target the brokerage community, select industries, and the Site Selection community.
Downtown Albemarle Redevelopment	Downtown Albemarle holds vast potential to once again be a hub for commerce and community growth. Projects such as building rehabilitation, conversion to residential units and new retail/entertainment space should be aggressively pursued. Additionally a vehicle to convey the opportunities held in Albemarle must be created. Such a vehicle may include print, direct mail and guided/personal tours and programs.
Tourism Related Marketing	Additional steps should be taken to enhance the capabilities of Stanly County's Convention and Visitor's Bureau. This includes the development of professional marketing pieces as well as resources to further develop tourism related events and activities.

UNION COUNTY

<i>Functional Area</i>	<i>Project Description</i>
Infrastructure Development	
Highway 74	Upgrade Highway 74 to Interstate quality to solve the congestion problem and provide effective passage through the Union County.
Highway 74	New US 74 upgrade projects have been currently identified in the Transportation Improvement Plan for 2004-2010 for three state divisions of the NCDOT, including Division 10 (Anson, Cabarrus, Stanly, Union). All of these projects should be identified and the value of their development communicated by their economic development agencies as a whole to their respective elected officials.

Centralina Regional Comprehensive Economic Development Strategy

IREDELL COUNTY

Transportation Program						Iredell County			
LOCATION	ID NO.	DESCRIPTION	LENGTH (MI)	TOTAL EST COST (THOU)	PRIOR YRS COST (THOU)	WORK TYPE	FUNDING SOURCE	COST ESTIMATES (THOU)	SCHEDULE (FISCAL YEARS)
INTERSTATE PROJECTS									
I-40	I-3302	SR 1717 (Exit 138) in Catawba County to West of SR 1512 (Exit 146) in Iredell County. Pavement and bridge rehabilitation	6.9	38800		Right-of-way construction, unfunded project	IM IM	800 38000	Post years Post years
I-40/77	I-3819	Statesville, Modification of Interchange Area		86954	869	Planning /Design Mitigation Right-of-way Construction Design-build Project	IM IM IM	585 9500 76000	In progress FFY 09 FFY 08 FFY 08
I-40	I-4730	Asheville to Winston-Salem Review existing interstate route and evaluate for future improvements				Scheduled Study	For Only	Planning and	Environmental
I-77	I-2514	SR 2171 (Jane Sowers Rd) Convert grade separation to an interchange		11400		Right-of-way Construction Unfunded Project	IM IM	1500 9900	Post years Post years
I-77	I-2806	South of SR 1891 in Iredell County to South of SR 1125 in Yadkin County Pavement and bridge rehabilitation and safety improvements	10.0	12378	7278	Construction part complete – part unfunded	IM	5100	Post years
RURAL PROJECTS									
US 21 -- NC 115	R-2522	Troutman Cedar Lane Avenue to SR 1336 in Barium Springs Widen to a multi-lane urban facility	1.6	4375		Right-of-way Construction Unfunded project	STP STP	175 4200	Post years Post years
US 70	R-2911	SR 2318 in Statesville to US 601 in Salisbury Widen to multi-lanes, part on new location	19.7	118462	63753	Planning /Design Right-of-way Mitigation Construction Part under Construction Strategic	STP STP Highway	4870 49839 Corridor	In progress Part in acquisition FFY 08 FFY 06 08 Project
NC 150	R-2307	NC 27 in Lincolnton to I-77 Widen to multi-lanes	22.6	97442	542	Planning /Design			In progress

Centralina Regional Comprehensive Economic Development Strategy

						Right-of-way Construction Programmed Study	STP STP For Only	13700 83200 Planning and	Post years Post years Environmental
SR 1100 Brawley School Road	R-3833	SR 1177 (Chuckwood Road) to US 21. Widen to multi-lanes with interchange at I-77	5.9	82538	750	Planning /Design Mitigation Right-of-way Construction Right-of-way Construction	STP STP STP STP STP	1088 37700 34100 5200 3700	In progress FFY 07 FFY 06 FFY 08 Post years Post years
SR 1379 - SR 1364	R-4741	Statesville Airport. Relocate SR 1379 (Airport Road) and SR 1364 (Fleetwood Road)		900	900	Under	Construction		
Mooresville	R-4757	SR 1206(Alcove Road) Relocation				Programmed Study only	For -- Planning	Planning and By Town of	Environmental Mooresville
URBAN PROJECTS									
Statesville	U-2568	SR 2333 (East Side Drive), SR 2532 (Barkley Road) to SR 2321 (East Broad Street). Widen to multi-lanes, part on new location	2.1	12600		Right-of-way Construction Unfunded project	STP STP	2100 10500	Post years Post years
Statesville	U-2731	US 21, SR 1933 to I-77. Widen to multi-lanes and realign offset intersections of SR 1922 and SR 2171	2.6	12230	500	Right-of-way Construction Unfunded project	STP STP	2830 8900	Post years Post years
Statesville	U-2930	US 21. US 64 to SR 1933. Widen to multi-lanes	2.0	17975		Right-of-way Construction Unfunded project	STP STP	5750 12225	Post years Post years
Statesville	U-3625	US 70, SR 2352 to I-77. Construct additional turn lanes.	0.6	3250		Right-of-way Construction Unfunded project	STP STP	2500 750	Post years Post years
Statesville	U-4749	US 64-70 (Garner Bagnel Road), I-40 to I-77. Widen to four lane divided facility.	4.5	17000		Right-of-way Construction Unfunded project	S S	400 16600	Post years Post years
FEASIBILITY STUDIES									
NC 150	FS-0212A	NC 115 to NC 150/NC 152 Split. Widen to four lane divided facility.	3.1			Feasibility	Study in	Progress	
FEDERAL BRIDGE PROJECTS									
US 21	B-3479	Hunting Creek. Replace bridge no. 103		2080	2080	Under construction			

Centralina Regional Comprehensive Economic Development Strategy

US 21	B-4982	Third Creek. Replace bridge no. 38.		2310		Right-of-way Construction	FA FA	210 2100	FFY 11 Post years
NC 115	B-4766	Rocky Creek. Replace bridge no. 69.		1320		Right-of-way Construction	FA FA	120 1200	FFY 08 FFY 09
SR 1333	B-2146	Buffalo Shoals Creek. Replace bridge no. 86.		1125	75	Right-of-way Construction	NFA NFA	50 1000	FFY 06 FFY 07
SR 1421	B-2576	Alexander Railroad. Replace bridge no. 513. Southern Railroad. Replace bridge no. 514.		4100	250	Right-of-way Construction	FA FA	750 3100	FFY 06 FFY 08
SR 1521	B-4155	Third Creek. Replace bridge no. 116.		1450	200	Right-of-way Construction	NFA	1250	In acquisition FFY 06
SR 1526	B-4552	Creek. Replace bridge no. 100.		810	150	Right-of-way Construction	NFA NFA	60 600	FFY 07 FFY 08
SR 1537	B-4156	Third Creek. Replace bridge no. 95.		535	100	Right-of-way Construction	NFA NFA	60 375	FFY 06 FFY 07
SR 1581	B-4157	Snow Creek. Replace bridge no. 140.		1057	200	Right-of-way Construction	NFA NFA	57 800	FFY 06 FFY 07
SR 1832	B-3350	Hunting Creek. Replace bridge no. 292.		1722	1722	Under construction			
SR 1854	B-4158	Rocky Creek. Replace bridge no. 228.		510	100	Right-of-way Construction	NFA NFA	35 375	FFY 06 FFY 07
SR 2308	B-4553	Fourth Creek. Replace bridge no. 312.		970	200	Right-of-way Construction	NFA NFA	70 700	FFY 08 FFY 09
SR 2382	B-4767	Weathers Creek. Replace bridge no. 14.		825		Right-of-way Construction	NFA NFA	75 750	FFY 09 FFY 10
VARIOUS	B-4912	Environmental mitigation for bridge projects in division 12				In progress			
BICYCLE AND PEDESTRIAN PROJECTS									
Statesville	E-4722	Museum Greenway: Free Nancy Road to Broad Street including Statesville Park.	2.5	550		Construction	STP	550	FFY 07
ENHANCEMENT PROJECTS									
Mooreville	E-4811	Phase A: Main Street, East McClelland Avenue to East Center Street. Streetscaping.		136	136	Under construction			
Mooreville	E-4962	Phase II: North Main Street. North of Center Avenue to South of Moore Street. Streetscaping.		182		Construction	STP O	147 35	FFY 06 FFY 06
Statesville	E-4812	Sidewalks in suburban-low income area to link recreational areas, shopping and social services building.		73	7	Construction	STP O	55 11	FFY 06 FFY 06
HAZARD ELIMINATION PROJECTS									
I-40	W-4711	Catawba County Line to Davie County		1000		Construction	HES	1000	FFY 06

Centralina Regional Comprehensive Economic Development Strategy

		Line. Install shoulder rumble strips.							
PASSENGER RAIL PROJECTS									
Mooreville	Z-3482A	Catawba Avenue at Norfolk Southern Railway Crossing 721 681V. Safety improvements		75	75	Funded --	Construction	Not	Authorized
Statesville	P-3823	Station rehabilitation. Platform and track work for Western North Carolina Service.		391		Construction	STP	391	FFY 06
ROADSIDE ENVIRONMENTAL PROJECTS (REST AREA)									
I-77	K-3403	Renovation of buildings to address safety and operational issues until a new pair are completed.		200		Construction	IM	200	FFY 06
I-77	K-4401	Renovation of buildings to address safety and operational issues until a new pair are completed.		200		Construction	IM	200	FFY 06
I-77	K-4908	New rest area pair on new location to replace two exiting pairs. One in Iredell County (Lake Norman) and the other at the Iredell/Yadkin County Line. To improve spacing and reduce maintenance costs.		12500		Right-of-way Construction	IM IM	2500 10000	FFY 09 FFY 10

* INDICATES INTRASTATE PROJECT

ALL SCHEDULES SUBJECT TO AVAILABILITY OF FUNDS

ROWAN COUNTY

TOP ROWAN COUNTY PRIORITIES:

1. Completion of the sewer and water projects identified in the corridors studies.
2. Completion of I-85 Bridge.
3. Completion of US 70.
4. Workforce Development pre-training programs
5. Develop regionalized approach to business incentives.

TRANSPORTATION PROGRAM

ROWAN COUNTY

LOCATION	ID NO	DESCRIPTION	LENGTH (MI)	TOTAL EST COST (THOU.)	PRIOR YRS COST (THOU.)	WORK TYPE	FUNDING SOURCE	COST ESTIMATES (THOU.)	SCHEDULE (FISCAL YEARS)
INTERSTATE PROJECTS									
I-85	I-2304	North of SR 2120 (Exit 81) in Rowan County to US 29-52-70/I-85 Business (Exit 87). Additional lanes and bridge reconstruction. (Project includes B-3833).	6.8	195592	10696	Mitigation Right-of-way Construction Construction Unfunded project Strategic	NHS NHS IM NHS	100 5500 80684 98612	Post years Post years Post years Post years
I-85	I-2511	US 29-601 Connector (Exit 68) to North of SR 2120 (Exit 81). Rehabilitate bridges and widen to eight lanes. (Coordinate with R-2903).	13.2	271181	201689	Construction Construction Part complete – part under construction Strategic	IM NHS	41964 27798	FFY 06 FFY 06
I-85/US 601	I-3610	US 29 and NC 152 (Exit 68). Interchange revision.		8000		Right-of-way Construction Unfunded	NHS NHS Project --	1700 6300 Coordinate	Post years Post years With I-3802.
I-85	I-3802	NC 73 in Cabarrus County to US 29-601 Connector in Rowan County. Add additional lanes.	13.6	123800	500	Planning /Design Right-of-way Construction Construction Coordinate Strategic	NHS IM NHS With I-3804 Highway	300 49200 73800 And I-3610 Corridor	In progress FFY 12 Post years Post years Project
I-85	I-3804	SR 1221 (Old Beatty Ford Road). Construct an interchange.		9050		Right-of-way Construction Unfunded	IM IM Project --	550 8500 Coordinate	Post years Post years With I-3802
I-85	I-4718	Cabarrus County Line to NC 152. Repair pavement and overlay with Novachip.	5.0	950		Construction	IM	950	FFY 07
RURAL PROJECTS									
US 52	R-2903	Multi-lanes south of NC 49 at	19.2	108600	1550	Planning			In progress

Centralina Regional Comprehensive Economic Development Strategy

		Richfield to I-85 north of Salisbury. Four lanes divided on new location. (Coordinate with I-2511)				/Design Right-of-way Construction Programmed Study Only Strategic	NHS NHS For planning Highway	10100 96950 And Corridor	Post years Post years Environmental Project
US 52, US 74, US 311, US 321, US 421, NC 49, NC 105	R-4414	National Highway System guardrail rehabilitation. Upgrade substandard guardrail, end treatments, and bridge anchor units.		625	625	Under	Construction		
US 70	R-2911	SR 2318 in Statesville to US 601 in Salisbury. Widen to multi-lanes. Part on new location.	19.7	118462	63753	Planning /Design Right-of-way Mitigation Construction Part under Strategic	STP STP Construction Highway	4870 49839 Corridor	In progress Part in acquisition FFY 08 FFY 06 08 Project
NC 152	R-4062	I-85/US 601 interchange to relocated US 52 (R-2903) near Rockwell. Upgrade facility.	9.2	19680		Right-of-way Construction Unfunded	STP STP Project	9530 10150	Post years Post years
URBAN PROJECTS									
China Grove	U-3803	US 29A, Realign intersection of NC 152 and SR 1337		881	881	Under	Construction		
Concord	U-4448	US 29, SR 1305 (Pitts School Road) in Cabarrus County to Ryder Avenue/Old Betties Ford Road in Rowan County. Install closed loop system.		1888	1888	Under	Construction		
Landis	U-4416	Construct grade separation at Rice Street over Piedmont High Speed Rail Corridor		6970		Right-of-way Construction Unfunded Project	STP STP	2670 4300	Post years Post years
Salisbury	U-3459	SR 2541 (Klumac Road), construct a grade separation with the North Carolina Railroad	0.4	11200	400	Right-of-way Construction Unfunded project	RR RR	1500 9300	Post years Post years
Salisbury	U-3460	SR 1002 (Bringle Ferry Road)/US 29-70 (Main Street). Five lane urban section. Grade separation over North Carolina and Norfolk Southern Railroads and an access road to Long	0.8	1700		Right-of-way Construction Unfunded project	STP STP	2600 14400	Post years Post years

Centralina Regional Comprehensive Economic Development Strategy

Salisbury	U-3623	Street. NC 150, SR 1516 to west of Grants Creek. Widen to multi-lanes.	3.0	11000		Right-of-way Construction Unfunded project	STP STP	900 10100	Post years Post years
Salisbury	U-3821	Jake Alexander Boulevard at Harrison Road to Peach Orchard Road at I-85. Two lanes on multi-lane right of way. New location.		14500		Right-of-way Construction Unfunded project	STP STP	800 13700	Post years Post years
Spencer	U-3822	SR 2120 (Long Ferry Road). Grade separation at Southern Railway.		7800		Right-of-way Construction Unfunded project	STP STP	2100 5700	Post years Post years
FEASIBILITY STUDIES									
Landis	FS-0309A	Extension of SR 1211 (Kimball Road), SR 2739 (Main Street) to SR 1221 (Bostian Road). Construct connector on new location.	0.7			Feasibility	Study in	Progress	
FEDERAL BRIDGE PROJECTS									
NC 49 (Eastbound Lane)	B-4626	Yadkin River and Winston-Salem Southbound Railroad. Rehabilitate deck bridge no. 3.		2420	220	Construction	FA	2200	FFY 09
NC 801	B-4255	Withrow Creek. Replace bridge no. 28.		2240	290	Right-of-way Construction	FA	1950	In acquisition FFY 06
NC 801	B-4256	South Yadkin River. Replace bridge no. 80.		3020	370	Right-of-way Construction	FA	2650	In acquisition FFY 07
SR 1003	B-4627	Third Creek. Replace bridge no. 26.		1240	250	Right-of-way Construction	NFA NFA	90 900	FFY 08 FFY 09
SR 1004	B-4257	Church Creek. Replace bridge no. 143.		970	200	Right-of-way Construction	FA FA	70 700	FFY 08 FFY 09
SR 1004	B-4808	South Second Creek. Replace bridge no. 141.		2750		Right-of-way Construction	NFA NFA	250 2500	FFY 08 FFY 09
SR 1308	B-4809	Lake Fisher. Replace bridge no. 221.		2200		Right-of-way Construction	NFA NFA	200 2000	FFY 09 FFY 10
SR 1547	B-4810	Back Creek. Replace bridge no. 12.		825		Right-of-way Construction	NFA NFA	75 750	FFY 09 FFY 10
SR 1759	B-4628	Back Creek. Replace bridge no. 6.		700	150	Right-of-way Construction	NFA NFA	50 500	FFY 09 FFY 10
SR 1949	B-3234	Creek. Replace bridge no. 78.		465	135	Right-of-way Construction	NFA NFA	30 300	FFY 08 FFY 09
SR 2048	B-4629	Second Creek. Replace bridge		1950	300	Right-of-way	FA	150	FFY 07

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		no. 25.				Construction	FA	1500	FFY 08
SR 2200	B-3236	Southern Railway. Replace bridge no. 381.		3668	3668	Under	Construction		
VARIOUS	B-4909	Environmental mitigation for bridge projects in Division 9.		2356	2356	In progress			
MUNICIPAL BRIDGE PROJECTS									
Kannapolis	B-3542	Pump Station Road over Bakers Creek Branch. Replace bridge no. 277.		393	48	Right-of-way Construction	NFAM NFAM	30 315	FFY 06 FFY 06
Salisbury	B-2085	North Ellis Street over Southern Railway. Replace bridge no. 393.		1906	386	Right-of-way Construction	NFAM NFAM	90 1430	FFY 06 FFY 06
Salisbury	B-2086	East Fisher Street over Southern Railway. Replace bridge no. 138.		1200		Right-of-way Construction	NFAM NFAM	300 900	FFY 06 FFY 07
BICYCLE AND PEDESTRIAN PROJECTS									
Countywide	E-3132	Bicycle route mapping and signing		30	30	In progress			
Countywide	E-3410	Uwharrie Lakes Region bicycle route mapping and signing		94	94	In progress			
Grants Creek Greenway	E-4982	Construct Grants Creek Greenway. Section 5 Phase 1: Landis Spur: Garden Street to Mt. Moriah Church Road	0.9	290		Construction	STP	290	FFY 07
Kannapolis	E-4985	8 th Street Greenway: Phase 1 and 2	0.6	475		Construction	STP	475	FFY 07 08
Salisbury	E-3308	Grants Creek Greenway Bicycle Trail, Phase 2. Hogansvalley Way to Forest Dale Drive	1.0	300		Construction	STP	300	FFY 07
Salisbury	E-4403	Kelsey-Scott Park/YMCA Connector	1.1	400	400	Under	Construction		
Salisbury	E-4713	Kelsey-Scott Park – Catawba College Greenway Connector	0.7	400		Construction	STP	400	FFY 07
ENHANCEMENT PROJECTS									
Granite Quarry	E-4557	Construct sidewalk and curb and gutter and install landscaping and bike rack on Brown Street		67	67	Under	Construction		
Kannapolis	E-4792	Construct a ten-foot greenway and pedestrian walkway linking Baker's Creek Park to the CBD		72	5	Construction Construction	STP O	54 13	FFY 06 FFY 06
Salisbury	E-3822	North Carolina Transportation Museum Back Shop Project		6551	6551	In progress			

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Salisbury	E-4949	Phase I: 100 and 200 blocks of East Fisher Street and 100 block of South Lee Street streetscaping		485		Construction Construction	STP O	388 97	FFY 06 FFY 06
Spencer	E-4791	Relocation of diesel locomotive no. 6133 at the North Carolina Transportation Museum		11	11	In progress			