

# *Chatham County*



*Approved FY 2017-2023  
Capital Improvements Program*

# Chatham County 2017-2023 Capital Improvements Program Introduction

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## About the Capital Improvements Program (CIP)

The CIP is a long-term plan for funding the County's major capital needs. It shows how facilities, equipment, and other projects that cost \$100,000 or more could be scheduled and funded over the next seven years, beginning in FY 2017.

It is important to state upfront that this is a PLAN, not a BUDGET, since a budget controls the actual spending of allocated funds. While staff attempts to be as accurate as possible, it is difficult to estimate project costs exactly, particularly early in the planning process. Before funds can be spent they must be budgeted through the operating budget or, in most cases, through a separately adopted project ordinance.

The same is true for operating costs. As facilities are being planned, staff attempts to identify operating costs, such as staffing and utilities. The cost of these items depends on final square footage and operational issues that may not be apparent until the facility is far along in planning.

## CIP Process

The CIP is a plan which is updated annually during the budget process and may be modified at any time to reflect changing conditions. A CIP is a systematic way of anticipating, planning, and budgeting for major projects. The adoption of a CIP can improve the credit worthiness (bond rating) of a jurisdiction.

Timeline for adoption:

- CIP requests originate at the department level. Requests were submitted by departments on or before October 5, 2015.
- The Manager's Office is responsible for reviewing new and existing requests and recommending a proposed CIP to the Board of Commissioners. The recommended CIP will be presented on November 2, 2015.
- Commissioners obtain public input on the CIP before discussing it. A public hearing is scheduled for November 6, 2015.
- Commissioners review the recommendation in detail and make changes. Commissioners have a work session scheduled on November 17, 2015.

The final action is adoption of the CIP, tentatively scheduled for the December 2015 meeting.

## Overall Approach

Two new debt-funded projects are recommended in the CIP, a new northeast elementary school and the CCCC Health Sciences Building. Both were future projects in last year's CIP. The cumulative effect of these projects is the need for approximately 2.35 cents to be added to the debt model. One cent of this amount can be covered with additional sales tax revenues approved in the 2015 session of the legislature. It is unlikely that the remaining 1.35 cents can be absorbed entirely by growth in existing revenues. These projects also carry substantial operating costs that will affect the budget, beginning in FY 2021.

In addition, there are significant future projects on the horizon, namely the replacement of the county's emergency radio system, the construction of an additional elementary or middle school, and the construction of a shared western intake and water plant on Jordan Lake. These projects will also require debt funding and will add significantly to the county's debt load, which is already projected to be the highest in our population group. Additional debt-funded projects, which are not deemed an absolute necessity, should be avoided in the near future.

The manager has made some modifications to the requests by the Board of Education and CCCC to reduce the effect on the debt model.

## Recommended Changes

Recommended changes to the Approved 2016-2022 CIP (as amended) include:

Schools: School projects are recommended as requested by the Chatham County Board of Education, unless noted below.

- **Either expand Northwood's core and delay the new northeast high school five years to open in August 2025 or move forward with the northeast high school to open in August 2020.** Last year, the Board of Education requested and the county manager recommended funding a feasibility study for the expansion of Northwood's core facilities to

accommodate 1,500 students. That study is complete and shows that the cost to expand Northwood is approximately \$27 million. Last year, the Operations Research and Education Laboratory at North Carolina State University (OR/Ed) projections showed that this expansion would be sufficient for high school students in the Northwood district until 2025, when the new high school, if delayed, would open. This year, preliminary OR/Ed projections show Northwood may be over 1,500 students before 2025. The school district has asked OR/Ed to refine these numbers before a final decision is made regarding how to accommodate the growth in the Northwood district. The county manager recommends that the Board of Commissioners approve both options and allow the Board of Education to move forward as it deems appropriate when new OR/Ed projections are received. Either option is fully supported by the debt model without additional revenues.

- **Add an elementary school in the northeast to open in August 2020.** OR/Ed projections show that North Chatham and Perry Harrison Elementary schools will exceed capacity in the next five years. The Board of Education has requested the addition of an elementary school in the northeast to open in August 2019 to accommodate additional students. The county manager recommends adding the school to open in August 2020. OR/Ed is currently updating projections. In addition, the number of students can be managed by limiting the number of pre-K students on campus and through mobile units. The addition of the school has a significant effect on the debt model. To open as requested by the Board of Education, an additional 1.6 cents is needed. As recommended by the county manager, an additional 1.5 cents is needed. The manager recommends that one cent of this be funded through new sales tax revenues approved by the General Assembly and that the remainder be added in the FY 2017 budget. It is possible, but not certain, that .5 cents could be absorbed by growth in existing revenues [+30,556,307]
- **Move up the renovation of the high school locker rooms, as requested.** The county manager is recommending that the renovation of high school and K-8 locker rooms be moved up, as requested. Cost escalation has been removed. [-4,730]
- **Fund a feasibility study for a new School Central Office building.** \$50,000 was requested in the FY 2017 operating budget to fund the study. Because the county lacks debt capacity for this project to move forward, the funding is not recommended until it can be determined that the project is viable.

- **Increase funding for mobile classrooms.** [+6,000]
- **Add future projects:** Schools HVAC/Lighting replacement and replacement of the wastewater system at Silk Hope School. Establishment of a capital reserve is recommended for the HVAC/Lighting project, to be funded through remaining new sales tax revenues and the county's capital reserve.

Other projects: Other projects are recommended as requested by the agency or department, unless otherwise noted.

- **Fund a Health Sciences Building on CCC's Pittsboro Campus to open January 2021.** CCC requested that the building be constructed on the Briar Chapel site to open January 2018. However, construction of a facility on the Pittsboro campus is \$948,602 cheaper in today's dollars than construction at Briar Chapel, which includes \$1,062,000 for land. The Pittsboro option also does not require construction of the civic space, as it will be near the Agriculture and Conference Center, which saves another \$925,461 in construction costs. Finally, operating costs for the Pittsboro site are cheaper by approximately \$50,000 per year. Because there is no time pressure with the Pittsboro site, staff recommends that the building be constructed to open January, 2021 to lessen the impact on the debt model and the additional revenue required to support it. The Pittsboro option opening in 2021 requires approximately 0.85 cents to be added to the debt model to fund future debt service. This will likely require an increase in the property tax rate, since it is not likely that the increase can be absorbed with growth in existing revenue. [+14,339,663]
- **Fund a modest increase in the Next Generation 911 project to cover costs not previously anticipated.** The increase will be funded entirely by 911 funds. [+29,394]
- **Add projects:** CCC roof replacement [+478,500], Justice Center A/V equipment replacement [+465,850], Tax Office software [+436,000], and DSS Software [+277,455], to be funded through capital reserve.
- **Increase the budget for annex renovations** to cover increased costs for escalation, changes in scope and renovations to the exterior. [+453,860]
- **Increase the budget for Briar Chapel Park** to cover additional costs associated with construction of the restroom/concession stand. The costs will be covered by recreation fees paid by the Briar Chapel development. [+175,473]

- Increase the budget for the Solid Waste building to cover unexpected costs associated with the scales and other unanticipated expenses. The costs will be covered by Solid Waste fund balance. [+50,000]

The CIP includes both summaries of major projects, revenues and operating expenses and detailed descriptions of each project, including justifications, cost detail, funding sources, and impacts on the operating budget.

Commissioners reviewed the recommendation and made one change before approving the CIP on December 14, 2015:

- The CCCC Health Sciences Building will be constructed at the Briar Chapel location and open in FY 2018. This change will require an additional 0.3 cents be added to the debt model.

### Debt-Model Assumptions

- 5.6 cents on property tax rate is dedicated annually. 2.35 cents will have to be added for northeast elementary school and CCCC health sciences building. One cent of this can be covered through additional sales tax revenue.
- 2% annual growth in property tax revenues/base (growth since the last revaluation has averaged 2.4%)
- 2% annual growth in lottery proceeds and impact fees between FY 2014 and FY 2022 and 0.4% annual growth thereafter. Note that the rate of growth of impact fees has increased since 2012, but the state legislature keeps reducing the allocation of lottery proceeds to counties.

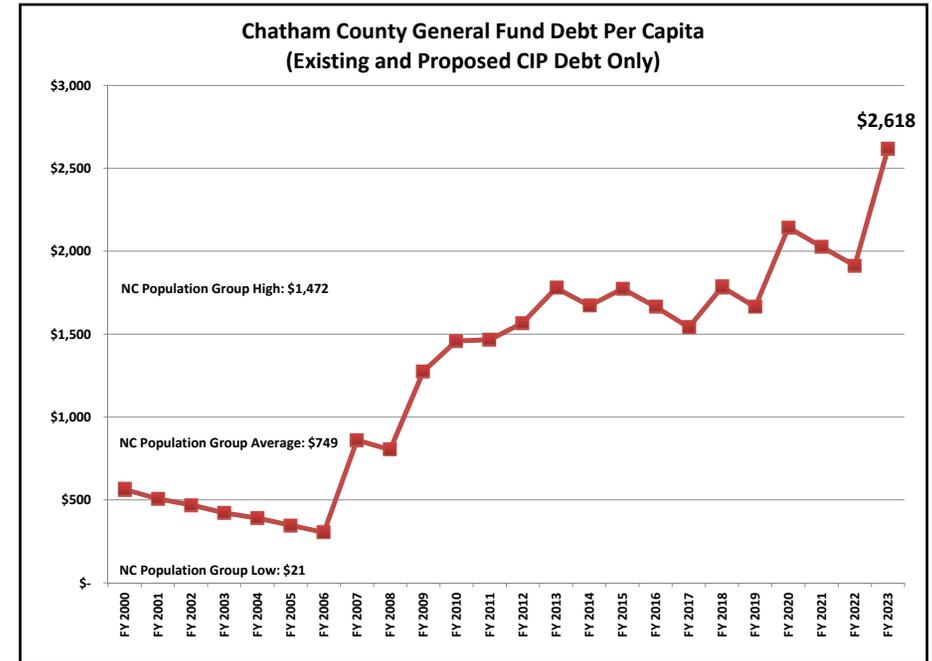
### Other Assumptions

Generally, construction costs are inflated 5% per year. Staff also recommends a 5-10 percent contingency for most projects.

Other project costs, such as equipment, and operating costs are usually inflated by a factor of 3% per year, unless there is good reason to use another inflationary factor (which will be noted).

Operating costs are generally inflated 3% per year, unless costs are fixed by contract.

### Bond Rating



Chatham's ratings are exceptional. Chatham is one of only 9 other counties in North Carolina to hold a AAA rating from Standard and Poor's and is by far the smallest county. Both ratings were upgraded in October 2014:

- Standard and Poor's (S&P): AAA (up from AA+)
- Moody's : Aa1 (up from Aa2/favorable outlook)

With a population more than twice as big as Chatham's, Orange County is the next largest county to hold a AAA. Of the surrounding counties, Chatham's combined rating is higher than Alamance, Lee, Harnett, Moore, and Randolph. Chatham holds the highest combined rating in its population group (50,000 to 99,999).

### Debt Indicators

Debt indicators are factored as if the combination Northwood expansion/northeast high school option is chosen. Debt loads would be lower overall, if only the new high school is built.

- Debt as a percent of assessed value: With a projected high of 1.94% in FY 2023, the county's indicator is projected to stay slightly below the highest county (as of June 30, 2014) at 2.154% in its population group (50,000 to 99,999) and well below the 8% legal maximum.

- Debt per capita: With a projected high of \$2,618 in FY 2023, the county per capita debt would exceed the current highest county (as of June 30, 2013) in its population group, \$1,472.
- Debt as a percent of the operating budget: Staff projects that, depending on decisions made in the operating budget, debt service may exceed the 15% maximum recommended by the Local Government Commission (LGC). The current model shows debt service at or below 15%. While this is an issue, the county differs from other counties in that funds for debt service have been set aside in a reserve account. Therefore, increases in debt service do not decrease Chatham County's flexibility to manage the operating budget, the primary concern of the LGC's maximum.

# Readers Guide

## County Buildings - Animal Shelter Expansion and Renovation

Approved-No Contracts

Project Status

**Project Budget:**

The budget for the project as approved by project ordinance or as approved in the FY 2016-2022 CIP.

**Project Element:**  
Expense

**Funding Source:**  
Revenue

**Operating Effect:**  
Impact on  
Operating Budget.

Build a 7,931-square-foot addition to the existing Animal Control shelter and renovate the existing 2,600-square-foot building to meet the needs of animals, visiting public, and staff. Separation of adoptable animals from those who are ill or otherwise not available for adoption will facilitate adoptions of shelter animals. The new building will provide adequate space for staff, and conform to industry best practices.

**Project Totals:**

Totals all expenditures and revenues, even those expended or received in previous years. Totals operating costs, but not those spent prior to FY 2016.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	0	0	0	0	0	322,056	0	0	0	0	322,056
Construction	0	0	0	0	0	0	3,930,654	0	0	0	3,930,654
Contingency	0	0	0	0	0	0	266,999	0	0	0	266,999
Feasibility Study	0	14,370	0	0	0	0	0	0	0	0	14,370
Furnishings & Equipment	0	0	0	0	0	0	110,985	0	0	0	110,985
Other Contracted Services	0	0	0	0	0	0	28,000	0	0	0	28,000
Permits & Connection Fees	0	0	0	0	0	0	22,400	0	0	0	22,400
<b>Total Project Element</b>	0	14,370	0	0	0	322,056	4,359,038	0	0	0	4,695,464
<b>Funding Source</b>											
Capital Reserves	0	0	0	0	0	322,056	4,359,038	0	0	0	4,681,094
General Fund Fund Balance	0	14,370	0	0	0	0	0	0	0	0	14,370
<b>Total Funding Source</b>	0	14,370	0	0	0	322,056	4,359,038	0	0	0	4,695,464
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	936,219	936,219	936,219	936,219	936,218	0	0	0	4,681,094
Decreased Operating Costs	0	0	0	0	0	0	0	-20,237	-20,237	-20,237	-80,948
Increased Operating Costs	0	0	0	0	0	0	188,329	182,728	188,210	193,858	753,125
<b>Total Operating Effect</b>	0	0	936,219	936,219	936,219	936,219	1,104,310	162,491	167,973	173,621	5,353,271

**Define Problem**

The animal control shelter was built in 1993 and its space is inadequate for dogs, cats, staff and the public.

The shelter is overcrowded. The 20 dog runs and the small area for cats remain full, making overcrowding the main reason for euthanizing animals. Between FY 2011 and FY 2014, 7,678 dogs and cats were sheltered, and 2,651 of these were euthanized due to lack of space despite being eligible for adoption. Public interest in the animal services field continues to increase. Encouraged by the national focus on animal welfare issues, local groups maintain interest in the way the county operates the Animal Services division. The Animal Services division operates the only county-run open admission facility in the area. To provide the best services to our community and animals, the division works to find positive outcomes for all healthy adoptable animals, to prevent pet overpopulation through spay and neuter efforts, and, when necessary, to give animals the most humane euthanasia possible.

A needs assessment conducted in 2014 by Bacon Group Inc. concluded that current animal intake numbers indicate a need for 34 dog kennels and 34 cat housing units. The needs assessment identified many problems with the existing facility, including:

- A single kennel area contributes to disease transmission. Best practices for modern animal shelters call for separately contained and ventilated kennel areas for daily intake, bite quarantine, health quarantine, healthy strays, and adoptable animals. The existing shelter has one kennel room with 10 runs on either side,

# Action Summary

Below is a summary of the status of projects in the CIP. Those that are shown as "approved" have already been approved by the Board of Commissioners, either in the FY 2016-2022 or by separate action and there is no substantial change in the project.

## **New** (has not been in a previous CIP)

- Community College - Health Sciences Building
- Community College - Pittsboro Campus - Roof Replacement
- Schools - High School Capacity Expansion
- Schools - Northeast Elementary School
- Technology - Justice Center AV Replacement
- Technology - Social Services Software
- Technology - Tax Software

**Approved-No Contracts** (approved in a previous CIP; all or part of the main contract has not been executed, but the project may be in design)

- Bike Lanes
- County Buildings - Annex Renovation
- County Buildings - Animal Shelter Expansion and Renovation
- Emergency Communications - Next Generation 911
- Parks - Briar Chapel Park Improvements
- Schools - Bleacher Replacements (Indoor)
- Schools - Locker Room Renovations
- Schools - Northwood High School Auditorium HVAC Replacement
- Schools - Roof Replacements
- Solid Waste & Recycling - Single Stream Recycling
- Technology - Increase Capacity for Data Storage
- Technology - Telephone System Replacement - Countywide
- Voting Equipment Replacement
- Water - Haywood Water Main Replacement
- Water - Nature Trail Water Main Replacement
- Water - Planning Western Intake and Plant

**Approved-Contracts Let** (approved in a previous CIP; main contract has been executed and project is underway)

- County Buildings - Chatham County Agriculture & Conference Center
- Schools - Joint School Bus & County Garage
- Schools - Mobile Classrooms
- Technology - Integrated Public Sector Software

**Substantially Complete** (at least some punch list items remain; some other expenses may remain)

- Central Carolina Business Campus
- County Buildings - Chatham County Detention Center
- Parks - Northeast District
- Solid Waste & Recycling - Replace Waste & Recycling Facility Office

**Complete** (the project is wholly complete with no remaining expenses)

- County Buildings – Historic Courthouse Restoration
- County Buildings – Justice Center
- Schools - Paving Installation and Replacement
- Technology – Patient Data Management and Electronic Health Records System
- Water - Increase Capacity

**Future** (the county does not have sufficient data or revenue to schedule the project; the project may be scheduled in future CIP)

- County Buildings - Assessment of Existing Agricultural Building
- County Buildings - Emergency Operations Center Expansion
- County Buildings - Jail Renovation for Sheriff's Office
- County Buildings - Northeast Library
- Emergency Communications - Radio System Upgrade
- Schools - HVAC/Lighting Replacement
- Schools - New Central Services Building
- Schools – New Schools
- Schools - Replace Gymnasiums at Bennett, Silk Hope and Bonlee
- Schools - Wastewater Replacement at Silk Hope Elementary School
- Technology - Fiber Extension to Siler City
- Water District - Southwest Water District Distribution Lines Construction

## **Cancelled**

- Community College - Pittsboro Campus - Weatherproof Administration Building (after cost analysis, does not meet CIP threshold)

## Total Cost of Each Project by Year

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Totals
<b>911</b>										
Emergency Communications - Next Generation 911	0	221,432	0	0	0	0	0	0	0	221,432
<b>Total 911</b>	0	221,432	0	0	0	0	0	0	0	221,432
<b>General</b>										
Bike Lanes	0	166,500	236,500	0	0	0	0	0	0	403,000
Central Carolina Business Campus	8,372,643	9,717	0	0	0	0	0	0	0	8,382,360
Community College - Health Sciences Building	0	30,000	6,210,747	8,643,083	0	0	0	0	0	14,883,830
Community College - Pittsboro Campus - Roof Replacement	0	0	0	0	0	0	0	0	478,500	478,500
County Buildings - Animal Shelter Expansion and Renovation	14,370	0	0	0	322,056	4,359,038	0	0	0	4,695,464
County Buildings - Annex Renovation	1,556,810	151,692	2,354,500	0	0	0	0	0	0	4,063,002
County Buildings - Chatham County Agriculture & Conference Center	3,534,222	9,313,149	500,000	0	0	0	0	0	0	13,347,371
County Buildings - Chatham County Detention Center	16,371,505	410,223	0	0	0	0	0	0	0	16,781,728
Parks - Briar Chapel Park Improvements	499,404	687,597	291,532	0	0	0	0	0	0	1,478,533
Parks - Northeast District	3,227,035	3,000	0	0	0	0	0	0	0	3,230,035
Schools - Bleacher Replacements (Indoor)	119,838	0	0	0	272,250	0	0	0	0	392,088
Schools - High School Capacity Expansion	373,711	516,000	6,422,504	12,293,275	7,432,371	0	0	1,282,266	19,252,142	47,572,269
Schools - Joint School Bus & County Garage	368,602	7,631,398	0	0	0	0	0	0	0	8,000,000
Schools - Locker Room Renovations	0	0	0	302,500	316,250	105,600	0	0	0	724,350
Schools - Mobile Classrooms	16,075	235,925	126,000	0	0	0	0	0	0	378,000
Schools - Northeast Elementary School	0	0	0	1,425,607	8,812,258	19,331,471	986,971	0	0	30,556,307
Schools - Northwood High School Auditorium HVAC Replacement	0	165,000	0	0	0	0	0	0	0	165,000
Schools - Roof Replacements	1,884,319	2,549,394	1,515,899	158,270	657,604	0	0	0	0	6,765,486
Technology - Increase Capacity for Data Storage	315,838	0	0	0	0	723,906	0	0	0	1,039,744
Technology - Integrated Public Sector Software	666,410	365,890	0	0	0	0	0	0	0	1,032,300

## Total Cost of Each Project by Year

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Totals
Technology - Justice Center AV Replacement	0	0	0	0	0	0	0	0	465,850	465,850
Technology - Social Services Software	0	0	117,552	159,903	0	0	0	0	0	277,455
Technology - Tax Software	0	0	0	0	436,000	0	0	0	0	436,000
Technology - Telephone System Replacement - Countywide	239,682	98,182	98,182	65,450	0	0	0	0	0	501,496
Voting Equipment Replacement	0	0	0	0	676,434	0	0	0	0	676,434
<b>Total General</b>	37,560,464	22,333,667	17,873,416	23,048,088	18,925,223	24,520,015	986,971	1,282,266	20,196,492	166,726,602
<b><u>Solid Waste &amp; Recycling</u></b>										
Solid Waste & Recycling - Replace Waste & Recycling Facility Office	1,151,917	346,633	0	0	0	0	0	0	0	1,498,550
Solid Waste & Recycling - Single Stream Recycling	0	755,822	0	0	0	0	0	0	0	755,822
<b>Total Solid Waste &amp; Recycling</b>	1,151,917	1,102,455	0	0	0	0	0	0	0	2,254,372
<b><u>Water</u></b>										
Water - Haywood Water Main Replacement	14,100	124,210	0	0	0	0	0	0	0	138,310
Water - Nature Trail Water Main Replacement	0	376,630	274,550	0	0	0	0	0	0	651,180
Water - Planning Western Intake and Plant	57,629	3,639	500,000	500,000	500,000	0	0	0	0	1,561,268
<b>Total Water</b>	71,729	504,479	774,550	500,000	500,000	0	0	0	0	2,350,758

# Funding Sources

The table below shows a summary of the funding sources for CIP projects by year. The major revenue sources are installment and other debt, fund balance, and insurance.

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Totals
<b>911</b>										
911 Funds	0	221,432	0	0	0	0	0	0	0	221,432
<b>Total 911</b>	0	221,432	0	0	0	0	0	0	0	221,432
<b>General</b>										
Bond Premium	2,670,742	0	0	0	0	0	0	0	0	2,670,742
Capital Reserves	1,050,212	432,682	748,336	686,123	2,680,594	5,188,544	0	0	944,350	11,730,841
Debt--Certificates of Participation (COPs)	7,364,593	0	0	0	0	0	0	0	0	7,364,593
Debt--Installment Purchase	1,157,659	0	1,110,012	0	0	0	0	0	0	2,267,671
Debt--Limited Obligation Bonds	17,936,832	17,870,770	6,922,504	14,877,640	29,387,731	19,331,471	986,971	1,282,266	19,252,142	127,848,327
Federal & State Reimbursement	0	0	117,552	0	0	0	0	0	0	117,552
General Fund Fund Balance	645,772	0	0	0	0	0	0	0	0	645,772
General Fund Operating Revenue	0	30,000	0	0	0	0	0	0	0	30,000
Grants, Gifts, Etc.	1,238,368	250,000	0	0	0	0	0	0	0	1,488,368
Interest	33,528	0	0	0	0	0	0	0	0	33,528
Operating Revenue	35,000	0	0	0	0	0	0	0	0	35,000
Recreation Exaction Fee	1,382,287	0	0	0	0	0	0	0	0	1,382,287
Recreation Exaction Fee--Briar Chapel	499,404	437,597	291,532	0	0	0	0	0	0	1,228,533
Transfer from General Fund	2,525,768	691,048	1,244,488	0	0	0	0	0	0	4,461,304
Transfer from Water Capital Reserve	1,020,299	2,621,570	1,228,245	0	0	0	0	0	0	4,870,114
<b>Total General</b>	37,560,464	22,333,667	11,662,669	15,563,763	32,068,325	24,520,015	986,971	1,282,266	20,196,492	166,174,632
<b>Solid Waste &amp; Recycling</b>										
Capital Reserves	0	724,822	0	0	0	0	0	0	0	724,822

# Funding Sources

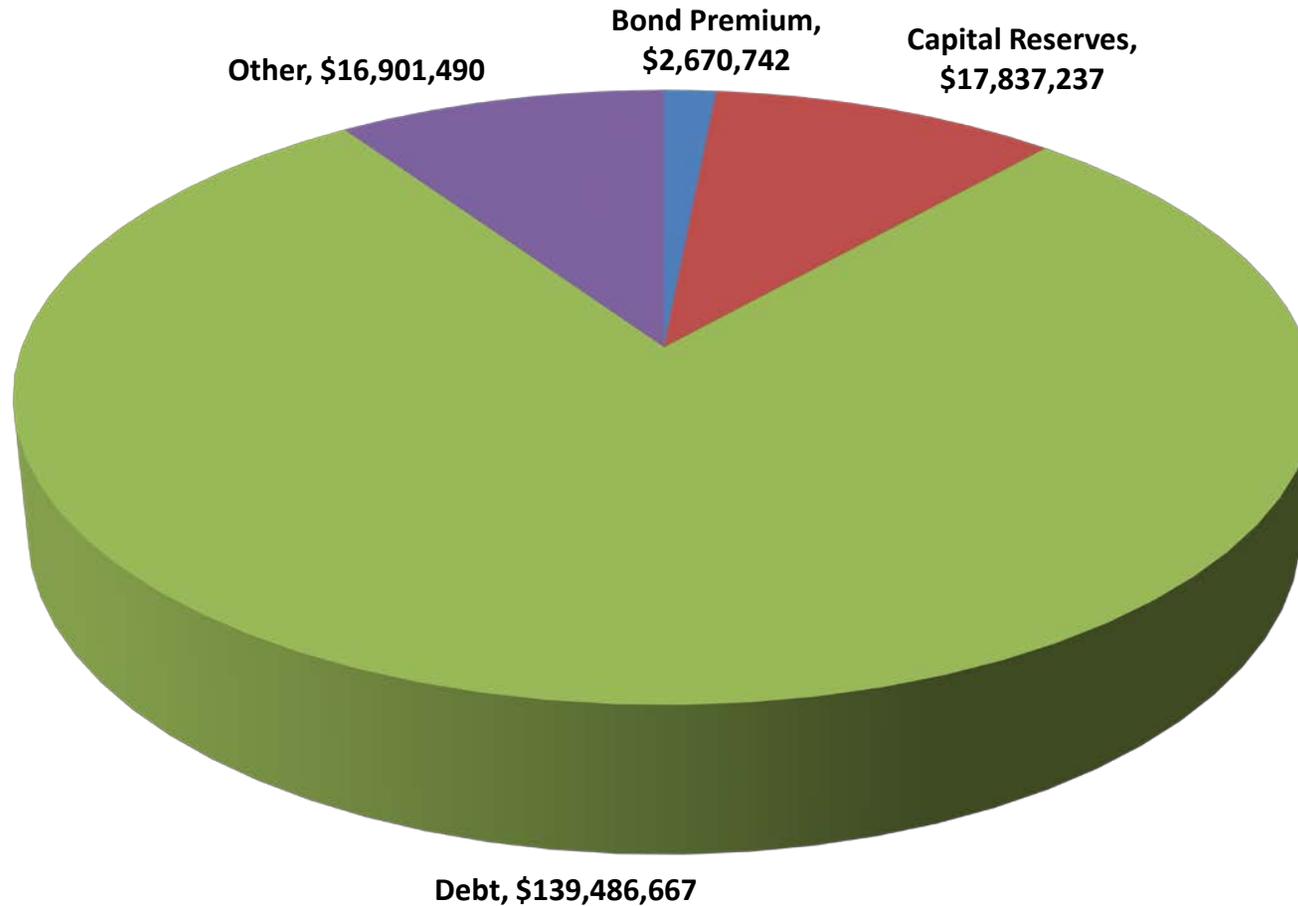
The table below shows a summary of the funding sources for CIP projects by year. The major revenue sources are installment and other debt, fund balance, and insurance.

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Totals
Grants, Gifts, Etc.	0	31,000	0	0	0	0	0	0	0	31,000
Operating Revenue	10,750	0	0	0	0	0	0	0	0	10,750
Solid Waste Fund Balance	1,141,167	346,633	0	0	0	0	0	0	0	1,487,800
<b>Total Solid Waste &amp; Recycling</b>	<b>1,151,917</b>	<b>1,102,455</b>	<b>0</b>	<b>2,254,372</b>						
<b>Water</b>										
Water Capital Reserve	71,729	504,479	774,550	500,000	500,000	0	0	0	0	2,350,758
<b>Total Water</b>	<b>71,729</b>	<b>504,479</b>	<b>774,550</b>	<b>500,000</b>	<b>500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,350,758</b>

## CIP Funding Sources

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### General Fund CIP Funding Sources

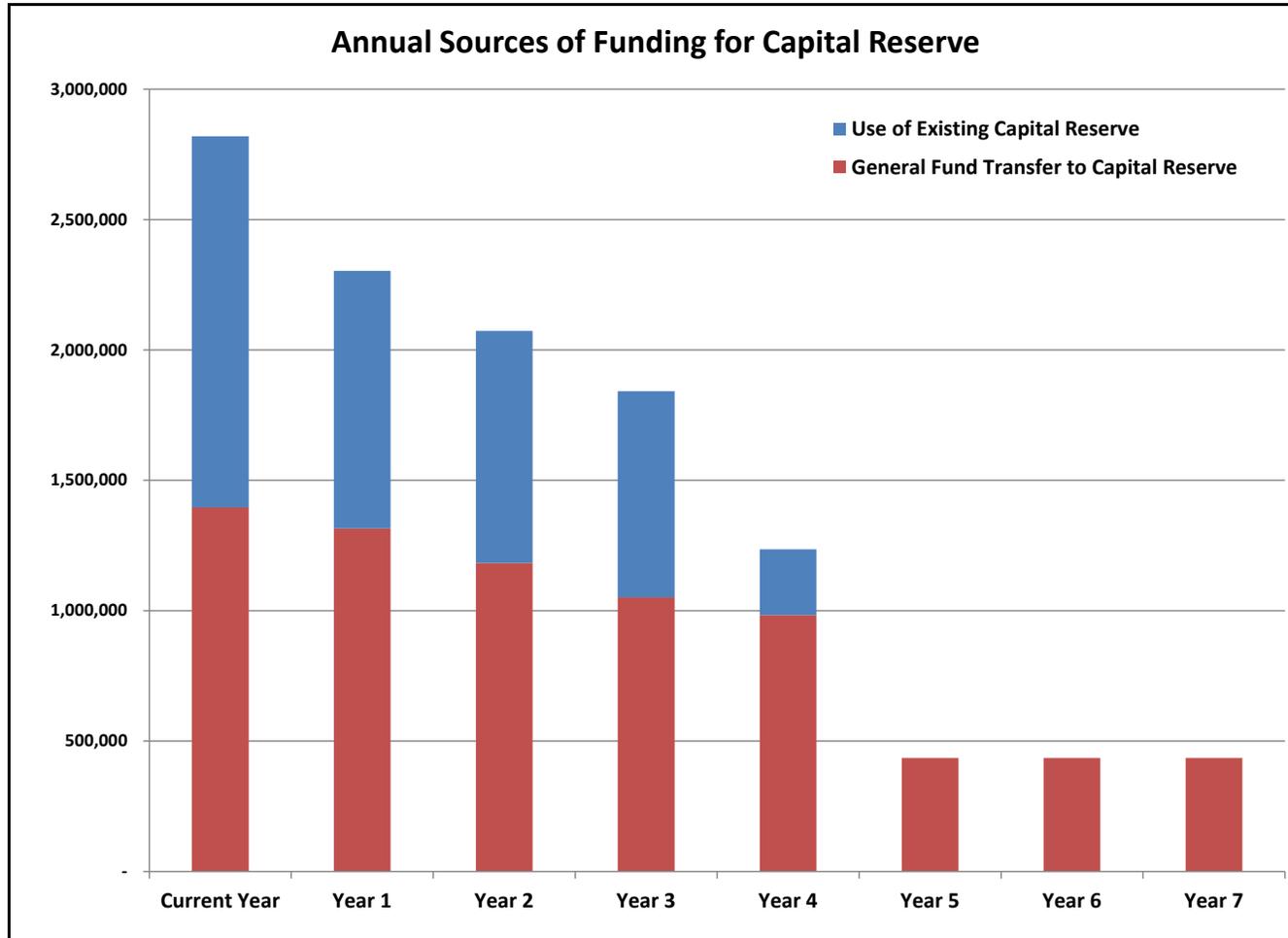


### General Fund Capital Reserve

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The recommended CIP continues the practice of funding pay-as-you-go General Fund projects through a capital reserve. The capital reserve has a balance of \$2,137,441. In addition, money left in debt-funded capital projects will be transferred to the capital reserve.

The chart shows the approximate annual contribution needed from the general fund.



## Parks & Recreation

Parks Capital Reserve Fund: Staff recommends spending a small amount (\$3,000) for improvements to Northeast Park in FY 2016 to finish that project. These funds have already been appropriated to the Northeast Park project. Staff projects that approximately \$125,000 will be left in the capital reserve after remaining funds from Northeast Park are transferred to the reserve.

Recreation Fees: Recreation fees are established and collected in two districts. The fees must be spent in the district in which they are collected.

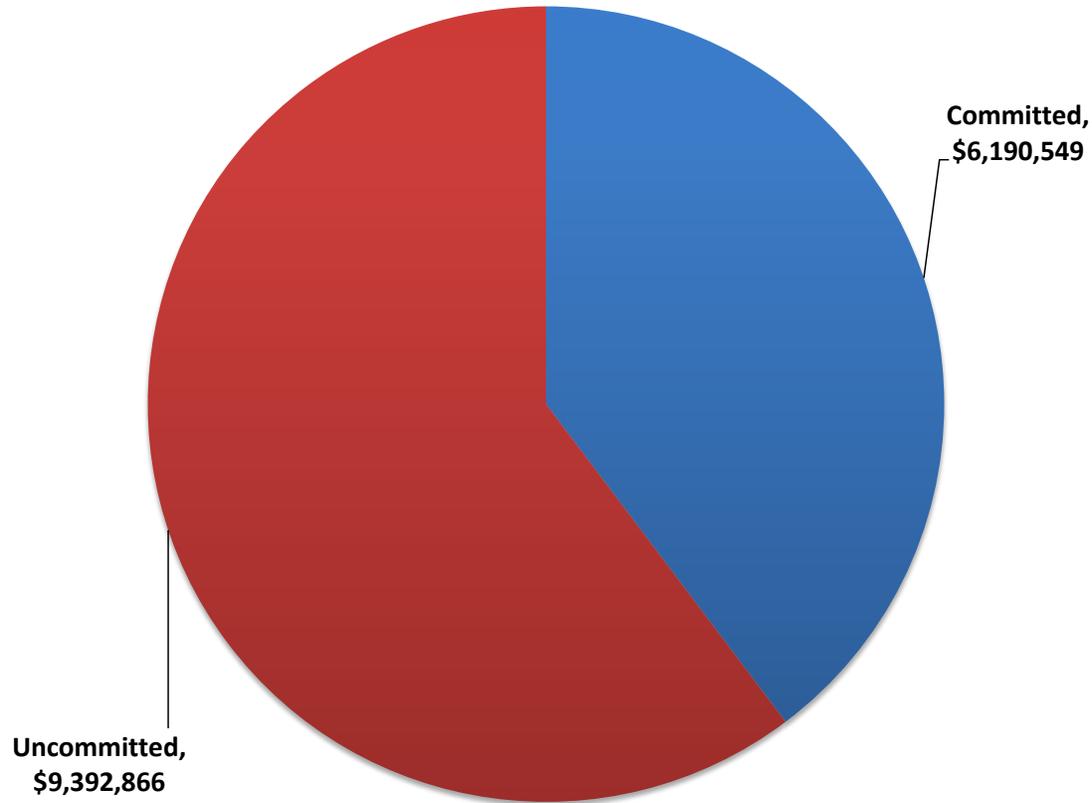
- Western District: Since the economic downturn the Western District, consisting of the Jordan-Matthews and Chatham Central High School districts, generated \$5,480 in FY 2015. These funds will be used to reimburse the general fund until it is made whole for the purchase of Northwest Park. At the current rate of development, this will take many years, leaving no funding for additional land in this district.
- Eastern District: Since the economic downturn, the Eastern District, consisting of the Northwood High School district, has generated very little revenue until FY 2014 (\$133,344 in FY 2015), excluding Briar Chapel fees. These funds will be used to reimburse the general fund until it is made whole for the purchase of land for the Southeast District Park. At the current rate of development, this will take approximately five more years, leaving no funding for additional land in this district. Note that funds generated in Briar Chapel will be used to pay for improvements in the Briar Chapel Park, as agreed to by the developer.

## **Water Capital Reserve**

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\$1.55 million in availability fees were collected in FY 2015.

**Uses of Water Capital Reserve**



# Operating Budget Effects

The table below shows the combined effect on the operating budget of the recommended projects for the next seven years. Operating effects include debt service, increased operating costs, decreased operating costs, additional revenues, and appropriation of revenue necessary to fund the project.

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023
<b>911</b>									
Decreased Operating Costs	0	-144,000	-148,320	-152,770	-157,353	-162,073	-166,935	-171,944	-177,102
Increased Operating Costs	0	192,000	197,760	203,693	209,804	216,098	222,581	229,258	236,136
<b>Total 911</b>	0	48,000	49,440	50,923	52,451	54,025	55,646	57,314	59,034
<b>General</b>									
Additional Revenues	-1,000	-1,000	-41,000	-73,834	-74,021	-74,215	-74,414	-74,619	-74,830
Contribution to Capital Reserve	43,956	2,819,316	2,321,017	2,090,025	1,824,372	1,218,176	134,907	134,907	134,907
Debt Service	2,084,363	2,866,831	3,559,882	4,833,029	6,907,453	7,663,311	7,310,478	8,813,855	10,166,007
Decreased Operating Costs	-126,000	-131,844	-342,773	-350,662	-384,297	-411,276	-418,222	-425,375	-432,744
General Fund Fund Balance	511,564	0	0	0	0	0	0	0	0
Increased Operating Costs	1,608,480	2,038,523	2,585,109	2,804,798	3,066,522	3,401,069	6,748,044	6,950,921	7,156,467
Offset from MIS Position	0	-36,233	-76,552	-76,961	-79,245	-81,598	-85,829	-86,516	-89,087
Transfer from Debt Reserve	-2,084,363	-2,866,831	-3,559,882	-4,833,029	-6,907,453	-7,663,311	-7,310,478	-8,813,855	-10,166,007
Transfer from General Fund	4,209,289	0	0	0	0	0	0	0	0
<b>Total General</b>	6,246,289	4,688,762	4,445,801	4,393,366	4,353,331	4,052,156	6,304,486	6,499,319	6,694,714
<b>Solid Waste &amp; Recycling</b>									
Decreased Operating Costs	-80,884	-89,684	-153,735	-245,472	-252,796	-260,319	-268,048	-275,988	-277,716
Decreased Revenue	0	0	65,959	67,938	69,976	72,075	74,237	76,465	78,758
Increased Operating Costs	0	155,600	14,662	17,087	17,593	47,511	48,909	59,193	60,968
Increased Revenue	0	0	-146,020	0	0	0	0	0	0
<b>Total Solid Waste &amp; Recycling</b>	-80,884	65,916	-219,134	-160,447	-165,227	-140,733	-144,902	-140,330	-137,990

# Operating Budget Effects

The table below shows the combined effect on the operating budget of the recommended projects for the next seven years. Operating effects include debt service, increased operating costs, decreased operating costs, additional revenues, and appropriation of revenue necessary to fund the project.

	Prior to FY 2016	Current Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023
<b><u>Water</u></b>									
Decreased Operating Costs	0	0	-16,230	-24,480	-24,480	-24,480	-24,480	-24,480	-24,480
Decreased Operating Costs (Utility Fund)	0	0	0	-16,263	-16,751	-17,253	-17,771	-18,304	-18,853
Increased Operating Costs (Utility Fund)	0	11,888	12,483	13,107	13,762	14,450	15,173	15,931	16,728
<b>Total Water</b>	0	11,888	-3,747	-27,636	-27,469	-27,283	-27,078	-26,853	-26,605

# Completed Projects

The following projects were completed as of June 30, 2015.

<b>Project Name</b>	<b>Brief Description</b>	<b>Final Project Budget</b>	<b>Final Cost</b>
County Buildings – Historic Courthouse	Reconstruct the Chatham County Historic Courthouse, which was damaged extensively by fire on March 25, 2010.	\$6,597,371	\$5,547,716
County Buildings – Justice Center	Construct an 87,093-square-foot judicial facility south of the Courthouse Annex to accommodate the existing and future needs of the judicial system.	\$22,711,946	\$22,512,972
Schools – Paving Installation and Replacement	Replace or repair deteriorated paving and pave unpaved areas of sidewalk, play areas, and roadways at Chatham Central, Chatham Middle, Horton Middle, Jordan-Matthews, Siler City, and Silk Hope	\$143,228	\$143,228
Technology - Patient Data Management and Electronic Records System	Purchase & implement patient data management system and electronic health records (EHR) system.	\$150,341	\$119,781
Water - Increase Capacity	Provide for the long-term needs of the county water system through a combination of system improvements and negotiated bulk purchases from other jurisdictions.	\$4,857,085	\$4,430,214

# Emergency Communications - Next Generation 911

Approved-No Contracts

Convert the 911 phone system and equipment to next generation technology.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Contingency	17,458	0	0	0	0	0	0	0	0	0	0
Furnishings & Equipment	174,580	0	221,432	0	0	0	0	0	0	0	221,432
<b>Total Project Element</b>	192,038	0	221,432	0	0	0	0	0	0	0	221,432
<b>Funding Source</b>											
911 Funds	192,038	0	221,432	0	0	0	0	0	0	0	221,432
<b>Total Funding Source</b>	192,038	0	221,432	0	0	0	0	0	0	0	221,432
<b>Operating Effect</b>											
Decreased Operating Costs	0	0	-144,000	-148,320	-152,770	-157,353	-162,073	-166,935	-171,944	-177,102	-1,280,497
Increased Operating Costs	0	0	192,000	197,760	203,693	209,804	216,098	222,581	229,258	236,136	1,707,330
<b>Total Operating Effect</b>	0	0	48,000	49,440	50,923	52,451	54,025	55,646	57,314	59,034	426,833

## Define Problem

The Chatham County Public Safety Answering Point (PSAP) is currently Phase II compliant, meaning that the system will give a caller's location, phone number, and location coordinates for both cell and land line calls. However, the PSAP is not capable of receiving text, video, or other types of smart phone applications. The exception to this is that the PSAP can use a text telephone device (TTY) to communicate with people who are deaf or hard of hearing. This is an effective communication device but does not allow the caller to be mobile.

To expand the capabilities of PSAPs, the NC State 911 Board has made next generation technology a priority. Next generation technology will enable communication centers to receive information in additional formats already used by the public, such as video and text. The National Emergency Numbering Association (NENA) has defined next generation standards for communication centers, but proposed no timeframe for the standard to be implemented. However, the county should plan now for this significant upgrade of technology.

The 911 fund will pay for this project.

## Recommended Solution

Implement next generation technology. In FY 2016, complete the purchase of hardware upgrades and replacements to ensure compatibility with next-generation technology and contract with a provider for service. Costs have increased over last year because the original quote did not include licensing, and an additional console.

## Alternatives

Three alternatives exist:

- 1) Plan now for the migration of Emergency Communications to next generation technology by monitoring future projects that are eligible for 911 funds to ensure that 911 funding will be available to fund the next generation technology.
- 2) Do no planning now and depend on grant funding from the State 911 board
- 3) Do nothing. Maintain the current level of operations (e.g. Phase II compliance) even when next generation technology becomes available.

# **General Fund Projects**

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# Bike Lanes

Approved-No Contracts

Provide 20% local match funding for four-foot bicycle lanes along Mt. Carmel Church Road (1.90 miles) and Manns Chapel Road (3.10 miles).

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	215,000	0	0	215,000	0	0	0	0	0	0	215,000
Engineering & Construction Manageme	34,500	0	13,000	21,500	0	0	0	0	0	0	34,500
Land & Easements	153,500	0	153,500	0	0	0	0	0	0	0	153,500
<b>Total Project Element</b>	<b>403,000</b>	<b>0</b>	<b>166,500</b>	<b>236,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>403,000</b>
<b>Funding Source</b>											
Capital Reserves	403,000	0	166,500	236,500	0	0	0	0	0	0	403,000
<b>Total Funding Source</b>	<b>403,000</b>	<b>0</b>	<b>166,500</b>	<b>236,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>403,000</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	284,750	118,250	0	0	0	0	0	0	403,000
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>284,750</b>	<b>118,250</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>403,000</b>

## Define Problem

The County has experienced a dramatic increase in vehicular and bicyclist traffic in recent years. Chatham's population is estimated at 67,620, which is a 6.5% increase since the 2010 Census. According to the Office of State Budget and Management 2014 Provisional County Population Estimates, Chatham County is the second fastest growing county in North Carolina and continues to grow with many commercial and residential development projects on the immediate horizon. Bicycle commuters are continually challenged with riding along two-lane rural roads with high posted speed limits largely with no shoulder and poor pavement quality. Between 1997 and 2008, there were a 50 reported car-bike crashes in the Chatham County; 35 of them within the unincorporated portions of the county.

Manns Chapel Road and Mt. Carmel Church Road were selected for submittal to the state's transportation project prioritization process (SPOT 3.0) for the addition of bike lanes. The roads are within the more densely populated northeastern corner of the county.

The adopted Chatham County Bicycle Plan (2011) identified installation of four-foot bike lanes along these routes as long-term projects. Bike lanes are portions of a roadway designated for the exclusive use of bicyclists.

The Manns Chapel Road segment represents a 3.10-mile stretch from US 15/501 to Poythress Road. The road connects directly into County Bike Route #3, which heads south across the county. Manns Chapel Road also connects to Bicycle Loop B as identified by the Chatham County Recreational Bike Loop Map.

The Mt. Carmel Church Road segment connects Old Farrington Point Road to the Orange County line. The total distance is 1.90 miles. This stretch of road is part of the North Carolina Mountains-to-Sea NC Bike Route 2, a route spanning from Murphy to Manteo, North Carolina. This route is also a popular connector for cyclists who tour Jordan Lake, as this route connects to Bicycle Loop C, identified on the Chatham County Recreational Bike Loop Map.

These projects were discussed by the Chatham Transportation Advisory Committee (TAC) and recommended for project submittal to the SPOT 3.0 process. The Board of Commissioners affirmed the submittal of these projects in August 2014. The Board submitted a letter of intent indicating intent to commit the 20% local funding match for these two bike lane projects.

After all projects have been scored and prioritized, NCDOT will use the scores as one of the factors in developing its Statewide Transportation Improvement Program (STIP), the document that determines what projects will be funded over the next 10 years. Other factors that NCDOT considers in developing the STIP include project readiness, federal funding rules, and the availability of funds allocated to certain regions and divisions.

### **Recommended Solution**

Provide the match for construction if the bike lane projects are selected for funding by the NCDOT.

### **Alternatives**

1)Provide no funding. The County could elect not to fund the bike lane projects, even if selected by NCDOT for funding. This option would not allow any improvement of bicycle facilities along two roads heavily traveled by both cyclists and automobiles. Opportunities to create on-road bicycle facilities would be limited to another state transportation project prioritization round or working with NCDOT during a resurfacing of either route, which would require full payment of constructing bicycle facilities.

2)Commit funding only if projects are selected after FY 2022. If these projects rank well enough in the Statewide Transportation Improvement Program (STIP) and are selected for funding prior to FY22, Chatham County may decline to provide the match for these projects, thus not constructing the bicycle facilities. However, Chatham County could request that NCDOT push back the projects to a future year within the STIP. Please note by doing this, the projects would be subject to state transportation project prioritization and ranking.

3)Commit funds if projects are selected. The STIP (adopted December 2014) reflects preliminary construction during FY 16 and project construction during FY17. Chatham County could commit the local match for the year in which the projects are selected. By doing this, the County is implementing an adopted bicycle plan and providing a safe, dedicated bicycle facility for cyclists in the county, thus increasing the safety of both drivers and cyclists.

### **Current Stage of Project**

The adopted STIP reflects preliminary engineering for both projects during FY16. Per NCDOT, analysis and design work to produce construction plans, specifications and cost estimates will begin soon, as construction is scheduled for FY17. The county's portion of costs includes right of way acquisition and 20% of preliminary engineering and construction. The county's cost would be \$153,700 for Mt. Carmel Church Road and \$249,300 for the Mann Chapel Road bike lanes.

### **Professional Services Needed**

Engineering services from NCDOT would be required.

# Central Carolina Business Campus

Substantially Complete

Construct the infrastructure for Chatham County's 458-acre Business Campus in Siler City, including construction of roadways, water lines, sewer lines, and sewer pump stations.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	7,258,416	7,255,413	9,500	0	0	0	0	0	0	0	7,264,913
Design, Engineering & Construction Ad	995,141	991,934	217	0	0	0	0	0	0	0	992,151
Land	129,204	125,296	0	0	0	0	0	0	0	0	125,296
<b>Total Project Element</b>	<b>8,382,761</b>	<b>8,372,643</b>	<b>9,717</b>	<b>0</b>	<b>8,382,360</b>						
<b>Funding Source</b>											
Debt—Certificates of Participation (COP)	7,364,593	7,364,593	0	0	0	0	0	0	0	0	7,364,593
Grants, Gifts, Etc.	399,882	399,882	0	0	0	0	0	0	0	0	399,882
Interest	22,777	28,056	0	0	0	0	0	0	0	0	28,056
Transfer from General Fund	257,695	242,298	9,717	0	0	0	0	0	0	0	252,015
Transfer from Water Capital Reserve	337,814	337,814	0	0	0	0	0	0	0	0	337,814
<b>Total Funding Source</b>	<b>8,382,761</b>	<b>8,372,643</b>	<b>9,717</b>	<b>0</b>	<b>8,382,360</b>						
<b>Operating Effect</b>											
Debt Service	0	304,258	246,633	542,577	529,058	515,538	289,018	496,393	481,183	465,973	3,870,631
Increased Operating Costs	0	25,675	47,045	48,457	49,910	51,408	52,950	54,538	56,174	57,860	444,017
Transfer from Debt Reserve	0	-304,258	-246,633	-542,577	-529,058	-515,538	-289,018	-496,393	-481,183	-465,973	-3,870,631
<b>Total Operating Effect</b>	<b>0</b>	<b>25,675</b>	<b>47,045</b>	<b>48,457</b>	<b>49,910</b>	<b>51,408</b>	<b>52,950</b>	<b>54,538</b>	<b>56,174</b>	<b>57,860</b>	<b>444,017</b>

## Define Problem

Lack of property served by adequate infrastructure is a challenge for economic development. In 2000, Chatham County purchased property for a business campus in Siler City. At the time it was purchased, the property was located just outside the town limits of Siler City. The town has since annexed it and is providing water and sewer through infrastructure built by the county. In addition, the county has also provided roads to ensure easy access for potential development. Three entities are now located within the campus: Chatham Hospital, the Chatham Youth Development Center and Central Carolina Community College.

## Recommended Solution

The project is substantially complete.

## Current Stage of Project

The business park was substantially complete in November 2009. Many of the engineering design and construction administration problems are in the process of being resolved. All needed additional easements for the bridge and roadway and dedication of the additional right-of-way requested by NC Department of Transportation (NCDOT) have been obtained, except for two properties. Remaining issues include the DOT requirement for the county to post a ten-year bond for future maintenance of the culverts.

# Central Carolina Business Campus

Substantially Complete

Negotiations with the landowner for placement of a sign are in progress. Design and cost estimates for the sign are complete. Once negotiations for the sign easement are complete, the approval process will begin.

Because of engineering design and construction administration problems, additional easements and rights-of-way must be obtained in order for NCDOT to accept and maintain roads; plats have been recorded for easements and right-of-ways obtained to date. Once the final two properties are resolved, a final plat that satisfies NCDOT needs to be executed and recorded. DOT has executed the maintenance agreement.

## **Relation to Other Projects**

The Central Carolina Community College job training center is complete.

## **Professional Services Needed**

Engineering design work and construction management were needed.

## **Operating Impact**

Funds are needed for bonds, grounds maintenance and electricity. As taxpaying entities locate in the business campus, the county would see an increase in property and sales tax revenues.

# Community College - Health Sciences Building

New

Construct a 46,000 square-foot Health Sciences building. The option also exists to construct a multi-purpose space attached through a common corridor.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	0	0	0	500,000	747,821	0	0	0	0	0	1,247,821
Construction	0	0	0	4,196,818	7,029,715	0	0	0	0	0	11,226,533
Contingency	0	0	0	256,504	702,972	0	0	0	0	0	959,476
Feasibility Study	0	0	30,000	0	0	0	0	0	0	0	30,000
Furnishings & Equipment	0	0	0	197,425	0	0	0	0	0	0	197,425
Land & Easements	0	0	0	1,060,000	0	0	0	0	0	0	1,060,000
Other Contracted Services	0	0	0	0	162,575	0	0	0	0	0	162,575
<b>Total Project Element</b>	<b>0</b>	<b>0</b>	<b>30,000</b>	<b>6,210,747</b>	<b>8,643,083</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14,883,830</b>
<b>Funding Source</b>											
Debt--Limited Obligation Bonds	0	0	0	0	1,158,758	13,143,102	0	0	0	0	14,301,860
General Fund Operating Revenue	0	0	30,000	0	0	0	0	0	0	0	30,000
<b>Total Funding Source</b>	<b>0</b>	<b>0</b>	<b>30,000</b>	<b>0</b>	<b>1,158,758</b>	<b>13,143,102</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14,331,860</b>
<b>Operating Effect</b>											
Debt Service	0	0	0	0	0	0	0	0	0	0	0
Increased Operating Costs	0	0	0	0	184,643	334,509	344,545	354,881	365,527	376,492	1,960,597
Transfer from Debt Reserve	0	0	0	0	0	0	0	0	0	0	0
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>184,643</b>	<b>334,509</b>	<b>344,545</b>	<b>354,881</b>	<b>365,527</b>	<b>376,492</b>	<b>1,960,597</b>

## Define Problem

The population of Chatham County is expected to grow exponentially over the next 25 years. This growth is fueled by the development of Chatham Park and by the potential impact of the Chatham Randolph Megasite located within the county. Currently, there is a significant amount of growth taking place on the northeast side of Chatham County with the potential for a medical facility to be constructed near the Briar Chapel area. This growth provides additional challenges for CCCC to meet the needs of the citizens of Chatham County as well as the potential increased workforce within the County.

A new Health Sciences building located in Chatham County offers many opportunities. An analysis of data associated with graduates from associate degree programs in health sciences indicates these graduates maintain a much higher rate of continued employment over the first five years after graduation than other program areas at a community college. These graduates also typically have a higher mean wage than graduates from other program areas. Employment projections for health care programs continue to be very positive.

Central Carolina Community College is poised to meet the growing needs of Chatham County. A new Health Sciences building would allow us the opportunity to expand program offerings for Chatham County citizens while also providing educational opportunities in a growing field with excellent long-term employment opportunities and higher average mean wages.

## Recommended Solution

CCCC requested that the building be constructed on the Briar Chapel site to open January 2018. Some of the reasons cited by the college and developer are:

- The location at Briar Chapel is a prime location with visibility from 15-501.
- CCCC's location at Briar Chapel provides a public facility in the northern part of the Chatham County, where current County services are limited or non-existent.

# Community College - Health Sciences Building

New

- The college has agreed that the facility could provide space for one-stop in northern Chatham, which has been difficult to obtain.
- Briar Chapel has the sewer capacity to develop the property now.
- Placing the CCCC Health Science building here could stimulate other commercial investment and tax base.
- There are several health science employers (e.g. Carolina Meadows, Galloway Ridge, UNC and Duke Healthcare) in northern Chatham that can provide both student education opportunities as well as jobs for graduates.
- Briar Chapel is growing at a pace right now of approximately 200 homes a year, a source of future students for the Central Carolina Community College especially since the implementation of the CC Works career readiness counselors.
- The location of the Briar Chapel Development, in its close proximity to Southern Orange and Durham counties will allow for more students from these areas to attend CCCC classes.
- The site will be surrounded by many walking and biking trails and amenities that will enhance the quality of the educational experience not only for the students, but for the staff.
- In this location, CCCC's campus will be developed as part of a well-planned and integrated larger scale retail/commercial site, which will enhance the experience for students and working environment for staff.

However, construction of a facility on the Pittsboro campus to open in January 2021 is recommended. This option is approximately \$948,602 cheaper in today's dollars than construction at Briar Chapel, which includes \$1,062,000 for land. The Pittsboro option also does not require construction of the civic space, as it will be near the Agriculture and Conference Center, which saves another \$925,461 in construction costs. Finally, operating costs for the Pittsboro site are cheaper by approximately \$50,000 per year.

Because there is no time pressure with the Pittsboro site, staff recommends that the building be constructed to open January, 2021 to lessen the impact on the debt model and the additional revenues required to support it.

The Pittsboro option opening in 2021 requires approximately 0.85 cents to be added to the debt model to fund future debt service. This will likely require an increase in the property tax rate, since it is not likely that the increase can be absorbed with growth in existing revenue.

Although significant growth is occurring in the northeastern part of the county, the development of Chatham Park will result in additional residents and medical facilities near the existing campus.

Commissioners approved the construction of the facility on the Briar Chapel site.

## Alternatives

1. One option is to not take any action. Central Carolina Community College will continue to offer the various programs we have at our Chatham County locations. This option could become problematic for students in the future as the population of Chatham County grows and the health sciences programs become more competitive to enter. Students may seek educational opportunities outside of the County.
2. Another option would be to construct the proposed building in the Briar Chapel area of Chatham County. This location would be close to planned healthcare sites and would serve a growing area of Chatham County. CCCC would be able to expand health sciences opportunities for all citizens and new degree options would be available for students.
3. A third option would be to construct this building on the Pittsboro campus. CCCC would be able to expand health sciences opportunities for all citizens and new degree options would be available for students.

## Description of Land Needs

Approximately 4 acres would be needed.

# Community College - Health Sciences Building

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New

## **Professional Services Needed**

Professional design, architecture, and construction would be needed.

## **Operating Impact**

Additional funding would be needed for utilities and building maintenance.

# Community College - Pittsboro Campus - Roof Replacement

New

Replace the roof on Building 42 on the Pittsboro Campus.

Project Budget	Budget	Prior to FY 2016	Current								Project Totals	
			Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023		
<b>Project Element</b>												
Architectural Design & Construction Ad	0	0	0	0	0	0	0	0	0	0	12,100	12,100
Construction	0	0	0	0	0	0	0	0	0	0	418,500	418,500
Contingency	0	0	0	0	0	0	0	0	0	0	41,850	41,850
Engineering & Construction Administrati	0	0	0	0	0	0	0	0	0	0	6,050	6,050
<b>Total Project Element</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>478,500</b>	<b>478,500</b>
<b>Funding Source</b>												
Capital Reserves	0	0	0	0	0	0	0	0	0	0	478,500	478,500
<b>Total Funding Source</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>478,500</b>	<b>478,500</b>
<b>Operating Effect</b>												
Contribution to Capital Reserve	0	0	0	68,357	68,357	68,357	68,357	68,357	68,357	68,357	68,357	478,500
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>68,357</b>	<b>68,357</b>	<b>478,500</b>						

## Define Problem

The roof on Building 42 on the Pittsboro campus is original to the building (1996). The roof is a membrane-type roof and will need replacing in approximately 7 years. The college is not currently experiencing issues with the roof; however, college officials anticipate the likelihood that it will need to be replaced sometime within the timeframe of the county's CIP. Since the roof is no longer under warranty, the repair costs will be paid for by the College and the County.

## Recommended Solution

A new roof should be planned for this building by 2022.

## Alternatives

- 1) Replace the roof with a new roof. A roofing engineer would need to be hired to determine the best roofing option available.
- 2) Make minor repairs to the roof as issues develop and work with a roofing engineer to determine whether there are short-term solutions that will alleviate the need for a roof replacement.

## Professional Services Needed

A roofing engineer would be needed.

# County Buildings - Animal Shelter Expansion and Renovation

Approved-No Contracts

Build a 7,931-square-foot addition to the existing Animal Control shelter and renovate the existing 2,600-square-foot building to meet the needs of animals, visiting public, and staff. Separation of adoptable animals from those who are ill or otherwise not available for adoption will facilitate adoptions of shelter animals. The new building will provide adequate space for staff, and conform to industry best practices.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	0	0	0	0	0	322,056	0	0	0	0	322,056
Construction	0	0	0	0	0	0	3,930,654	0	0	0	3,930,654
Contingency	0	0	0	0	0	0	266,999	0	0	0	266,999
Feasibility Study	0	14,370	0	0	0	0	0	0	0	0	14,370
Furnishings & Equipment	0	0	0	0	0	0	110,985	0	0	0	110,985
Other Contracted Services	0	0	0	0	0	0	28,000	0	0	0	28,000
Permits & Connection Fees	0	0	0	0	0	0	22,400	0	0	0	22,400
<b>Total Project Element</b>	<b>0</b>	<b>14,370</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>322,056</b>	<b>4,359,038</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,695,464</b>
<b>Funding Source</b>											
Capital Reserves	0	0	0	0	0	322,056	4,359,038	0	0	0	4,681,094
General Fund Fund Balance	0	14,370	0	0	0	0	0	0	0	0	14,370
<b>Total Funding Source</b>	<b>0</b>	<b>14,370</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>322,056</b>	<b>4,359,038</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,695,464</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	936,219	936,219	936,219	936,219	936,218	0	0	0	4,681,094
Decreased Operating Costs	0	0	0	0	0	0	-20,237	-20,237	-20,237	-20,237	-80,948
Increased Operating Costs	0	0	0	0	0	0	188,329	182,728	188,210	193,858	753,125
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>936,219</b>	<b>936,219</b>	<b>936,219</b>	<b>936,219</b>	<b>1,104,310</b>	<b>162,491</b>	<b>167,973</b>	<b>173,621</b>	<b>5,353,271</b>

## Define Problem

The animal control shelter was built in 1993 and its space is inadequate for dogs, cats, staff and the public.

The shelter is overcrowded. The 20 dog runs and the small area for cats remain full, making overcrowding the main reason for euthanizing animals. Between FY 2011 and FY 2014, 7,678 dogs and cats were sheltered, and 2,651 of these were euthanized due to lack of space despite being eligible for adoption.

Public interest in the animal services field continues to increase. Encouraged by the national focus on animal welfare issues, local groups maintain interest in the way the county operates the Animal Services division. The Animal Services division operates the only county-run open admission facility in the area. To provide the best services to our community and animals, the division works to find positive outcomes for all healthy adoptable animals, to prevent pet overpopulation through spay and neuter efforts, and, when necessary, to give animals the most humane euthanasia possible.

A needs assessment conducted in 2014 by Bacon Group Inc. concluded that current animal intake numbers indicate a need for 34 dog kennels and 34 cat housing units. The needs assessment identified many problems with the existing facility, including:

- A single kennel area contributes to disease transmission. Best practices for modern animal shelters call for separately contained and ventilated kennel areas for daily intake, bite quarantine, health quarantine, healthy strays, and adoptable animals. The existing shelter has one kennel room with 10 runs on either side,

making it difficult to separate animals, control disease, treat sick animals, and provide appropriate care.

- Public areas of the shelter are inadequate. The lobby serves as offices for the shelter manager and shelter attendant and also is where adoption services are provided to the public. As a result, newly arrived animals are in the same area as animals being considered by the public for adoption. This creates confusion and stress for the public, staff and animals.
- The building has only one restroom for staff and no public restrooms.
- There is inadequate space for treatment of animals that come into the shelter in need of testing, immunization and simple first-aid procedures. The “kitchen” serves as an animal treatment room, laundry room, utility room, storage and is also where staff washes dishes and equipment.
- There is inadequate space for staff. The facility does not allow staff to function efficiently, safely, and, when necessary, out of the view of the public. The animal control supervisor and four animal control officers are housed in a leased trailer adjacent to the shelter building.
- Additional storage space is required. A wooden storage building behind the kennels currently provides storage for dog and cat food. More permanent solutions should be considered that will not require employees to transport food between buildings in all kinds of weather and that will reduce pests and vermin from having access to the food sources of shelter animals.
- There are several safety issues for the safety of the staff, public, and animals. Open kennel drain trenches pose a risk of injury as well as transmission of disease due to washing excrement past kennels of healthy animals. The chain link fencing, coated steel cable systems, and plastic guillotine doors are showing wear due to aging and represent potential hazards. Replacement of these materials with more current materials will decrease risk of injury to the staff. The current kennel wall surfaces have deteriorated and continue to do so. This allows for diseases like deadly canine parvo virus to stabilize in the setting and re-infect other incoming animals. The steel columns and interior walls are constantly being exposed to harsh chemicals and moisture, causing them to rust. The current euthanasia area is outdoors. While it is covered, it is still exposed to some elements such as rain, cold, and heat, creating stress for animals and staff during the euthanasia process. According to the American Shelter Veterinarians Standards of Care report, euthanasia should be performed in a location where other animals can neither see nor hear the process.
- The current shelter does not facilitate the adoption of cats and dogs. When the public comes to the shelter for the potential purpose of adopting animals, they are not presented with a clear choice. Due to space limitations, the “adoptable” dogs are intermingled with strays not available for adoption, including those quarantined for observation for rabies symptoms and dogs whose temperaments are not suitable for adoption. Potential adopters know that many of the dogs they are viewing will be euthanized in the shelter, which keeps many people from visiting the shelter. The shelter has no interior “meet and greet” area for potential adopters to interact with the dogs, so they are normally directed to take the dog outside on a leash to interact for a short time.

## **Recommended Solution**

Renovate and expand the existing animal control shelter to provide a facility that is safe, healthy and functional for staff, visitors, and animals.

The Bacon Group needs assessment included recommendations for the design of a new shelter and renovations to the existing space that will provide separate intake and adoption buildings and include future space for spay/neuter surgery and education for the public. The design recommendations will address the problems identified with the existing facility, as discussed above, and make shelter operations more efficient. The separation of the buildings and updated HVAC systems will work to reduce disease transmission between animal populations and facilitate the adoption of animals. Future space for spay/neuter surgery would eliminate the need for staff to transport animals to and from veterinarian offices for surgery. Space for public education would permit outreach to the community and enhance public awareness of the roles and responsibilities of the community in reducing euthanasia due to pet overpopulation and disease control. The recommendation calls for fundraising for these two future spaces.

Continue discussions and partnerships with non-profit agencies to create more options for positive outcomes for the shelter animals.

## **Alternatives**

- 1) Do nothing. Continue to operate the existing facility despite the problems and community interest in improvements. Because the agency is required to meet certain housing standards in the Animal Welfare Act, services would have to be cut in order to meet the husbandry practices associated with inspection by the North Carolina Department of Agriculture. Disease and illness in the animal population would continue to be a costly issue and both staff morale and customer satisfaction would be compromised.
- 2) Partner with a local nonprofit agency to house an adoption center in the Pittsboro area that would draw animals from the animal control shelter as well as from

other sources. While such a partnership could increase the adoption rate, it does not meet the critical and immediate need to expand and renovate the existing facility. A new facility is needed to address the need of the county to provide sheltering to support animal control enforcement and best practices for protecting animal health and improving outcomes.

3) Partner with a nonprofit group to oversee and manage the animal sheltering capabilities in the county. This could be a viable option if there was a local nonprofit group that could sustain the core functions and funding of the shelter.

4) Renovate and expand the existing animal control facility according to design recommendations from the Bacon Group. The new facility will provide separate intake and adoption areas and house 143 animals. The building would have a life expectancy of 25 to 30 years.

Construction will address essential needs for animal shelter operations, including:

- A new building that adds an additional 40 kennels for canines and 42 cat housing units.
- Updated staff spaces that include shelter administrative offices, grooming areas, food prep areas, laundry room with commercial grade appliances, designated treatment rooms, break room, and janitorial area.
- A sally port and intake area for officers to safely load and unload animals without escape. A designated euthanasia area would be in this structure.
- Private feral cat holding room in the intake area to reduce travel and stress.
- The renovation of the existing facility would increase the efficiency of the current building. This building would house field office staff, sick isolation and dangerous animal holding.

Several community members and non-profit agencies have expressed interest in conducting fundraising campaigns to strengthen the availability of funds for a new shelter. Although not essential to shelter operations, the recommendation includes shell space that can be completed in the future with private donations. This space could serve as a community education and training room to host meetings and educational events. The recommendation also includes design of a surgical suite that could be added later through fundraising.

## **Description of Land Needs**

Existing two acres.

## **Professional Services Needed**

Planning and architectural services will be needed. A preliminary needs assessment and cost estimates were completed in 2014.

## **Operating Impact**

Additional funds will be needed for staffing, equipment, and building maintenance.

# County Buildings - Annex Renovation

Approved-No Contracts (Part)

FY 2013 to FY 2017: Renovate in two phases the Courthouse Annex for the Manager's Office, Finance, Tax, and Register of Deeds to expand into space vacated by the courts.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	2,900,276	1,294,438	0	2,000,000	0	0	0	0	0	0	3,294,438
Contingency	157,500	0	0	200,000	0	0	0	0	0	0	200,000
Design, Engineering & Construction Ad	297,953	167,792	151,692	0	0	0	0	0	0	0	319,484
Furnishings & Equipment	253,413	94,580	0	154,500	0	0	0	0	0	0	249,080
<b>Total Project Element</b>	<b>3,609,142</b>	<b>1,556,810</b>	<b>151,692</b>	<b>2,354,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,063,002</b>
<b>Funding Source</b>											
Capital Reserves	338,348	0	0	0	0	0	0	0	0	0	0
Debt--Installment Purchase	521,542	0	0	1,110,012	0	0	0	0	0	0	1,110,012
Transfer from General Fund	2,749,252	1,556,810	151,692	1,244,488	0	0	0	0	0	0	2,952,990
<b>Total Funding Source</b>	<b>3,609,142</b>	<b>1,556,810</b>	<b>151,692</b>	<b>2,354,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,063,002</b>
<b>Operating Effect</b>											
Transfer from General Fund	0	2,952,990	0	0	0	0	0	0	0	0	2,952,990
<b>Total Operating Effect</b>	<b>0</b>	<b>2,952,990</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,952,990</b>

## Define Problem

Many of the county's offices are located in rental space or have outgrown existing space. Excluding special-purpose buildings such as jail, courts, libraries, garage, and animal shelter, a space needs study completed in 2009 by the Wooten Company found:

- The County occupied more than 10,000 square feet in office/storage rental space (equivalent to \$120,000 per year in rent).
- The County needed an additional 20,000 square feet in office/storage space to meet immediate needs.
- An additional 37,000 square feet will be needed in 5 to 10 years.
- An additional 86,000 square feet will be needed in 20 years. The purchase of the Performance Building helped address about one-half of the short-term needs. Approximately 14,500 square feet is occupied, with the remainder of the building being rented out in the short term.

## Recommended Solution

When the Justice Center was complete, the clerk of court and district court moved into that building, freeing the Annex for additional county office space. The space needs consultant recommended that:

- Register of deeds move to the space occupied by the clerk of court.
- Tax expand into area occupied by register of deeds.
- Manager's office expand into district court.
- Renovate existing Tax area and expand Finance into the area occupied by MIS.

## Alternatives

Many options exist for addressing space needs; however, a change to one project may have a chain reaction and change many projects and/or plans. The options presented address the major areas of concern noted in the space needs study and provide a reasonable foundation for the county to meet its space needs for the foreseeable future.

## **Current Stage of Project**

The Board of Commissioners approved proceeding with renovating the eastern half of the annex building, which was completed at the end of January 2014. The Manager's Office, including the County Attorney, is now consolidated in the expanded space, and the Register of Deeds office moved into the renovated space formerly occupied by the clerk of court. MIS moved into the space vacated by temporary superior court in the same timeframe. When the new Agriculture and Conference Center is complete, the Finance and Tax departments will move into the vacant space in the existing building, and renovation of the western half of the annex will begin (this is estimated for summer 2016).

## **Relation to Other Projects**

The project is related to the Performance Building renovation, construction of the Justice Center, and construction of the new Agriculture and Conference Center. Together, these projects go a long way towards addressing the county's space needs. The renovations to the Annex Building could not occur if the justice center had not been constructed.

## **Professional Services Needed**

Detailed architectural drawings and construction management will be needed.

# County Buildings - Chatham County Agriculture & Conference Center

Construct a new agricultural center for Chatham County of approximately 35,000 square feet.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	850,000	773,018	86,241	0	0	0	0	0	0	0	859,259
Construction	10,729,674	2,495,370	7,796,417	500,000	0	0	0	0	0	0	10,791,787
Contingency	536,480	0	536,480	0	0	0	0	0	0	0	536,480
Feasibility Study	35,000	35,000	0	0	0	0	0	0	0	0	35,000
Financing Costs	120,150	89,712	0	0	0	0	0	0	0	0	89,712
Furnishings & Equipment	853,563	0	824,011	0	0	0	0	0	0	0	824,011
Other Contracted Services	92,088	141,122	70,000	0	0	0	0	0	0	0	211,122
Permits & Connection Fees	201,084	0	0	0	0	0	0	0	0	0	0
<b>Total Project Element</b>	<b>13,418,039</b>	<b>3,534,222</b>	<b>9,313,149</b>	<b>500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,347,371</b>
<b>Funding Source</b>											
Bond Premium	1,381,949	1,498,733	0	0	0	0	0	0	0	0	1,498,733
Debt--Limited Obligation Bonds	12,001,090	1,999,115	9,313,149	500,000	0	0	0	0	0	0	11,812,264
Interest	0	1,374	0	0	0	0	0	0	0	0	1,374
Operating Revenue	35,000	35,000	0	0	0	0	0	0	0	0	35,000
<b>Total Funding Source</b>	<b>13,418,039</b>	<b>3,534,222</b>	<b>9,313,149</b>	<b>500,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,347,371</b>
<b>Operating Effect</b>											
Additional Revenues	0	0	0	-40,000	-65,000	-65,000	-65,000	-65,000	-65,000	-65,000	-430,000
Debt Service	0	549,531	804,656	1,068,566	1,044,326	1,019,399	1,238,968	956,627	929,990	902,000	8,514,063
Decreased Operating Costs	0	0	0	-600	-600	-600	-600	-600	-600	-600	-4,200
Increased Operating Costs	0	0	99,577	349,866	361,478	369,030	381,947	391,834	403,629	412,259	2,769,620
Offset from MIS Position	0	0	-36,233	-76,552	-76,961	-79,245	-81,598	-85,829	-86,516	-89,087	-612,021
Transfer from Debt Reserve	0	-549,531	-804,656	-1,068,566	-1,044,326	-1,019,399	-1,238,968	-956,627	-929,990	-902,000	-8,514,063
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>63,344</b>	<b>232,714</b>	<b>218,917</b>	<b>224,185</b>	<b>234,749</b>	<b>240,405</b>	<b>251,513</b>	<b>257,572</b>	<b>1,723,399</b>

## Define Problem

The current building was built in 1956 and has never had a major renovation. Storage space is inadequate. The original building was not compliant with the Americans with Disabilities Act (ADA). To get to the lower floor, wheel-chair-bound clients must use their vehicles or go around the building on the street. The building is inefficient to heat and cool, and upstairs restrooms have no air conditioning and limited ventilation. Participants in educational programs complain about the condition of the facilities and the lack of parking in close proximity to the current building. Also, the lack of reserved loading zone space makes it difficult for the staff to load and unload equipment and materials necessary for programs. Many Extension educational programs are being moved offsite and rent must be paid for a larger meeting space to meet client demands.

## Recommended Solution

Build a stand-alone Chatham County Agriculture & Conference Center to house the natural resources and agricultural agencies and to provide a meeting facility that all county departments, Central Carolina Community College and nonprofit agencies could use and the public could rent.

The new facility would allow ample meeting space/auditorium for expanded programs and corporate or educational meetings that might last for several days. Meetings of this size would have the potential to attract new food and lodging establishments and other businesses that provide services for out-of-town visitors. The facility will also include storage space, a teaching kitchen/laboratory and a catering kitchen in proximity to the auditorium, one set of bathroom facilities for staff that includes shows, and ample parking for both cars and trucks with trailers. Land should also be adequate for a Livestock Show Ban, mini arboretum and demonstration plots, which may be added in the future and funded with private donations. The advantages of building on the west side of the Central Carolina Community College (CCCC) Pittsboro Campus are that it is centrally located within the county, and the sustainable agriculture program at the college would be a good partner for many programs.

The facility is currently scheduled to open mid-2016.

## Alternatives

(1) Expand and renovate the County Agricultural Building. A study conducted by Hobbs Architects in 2008 estimated that it would cost between \$7 and \$8 million to add 17,000 square feet, replace mechanical and electrical systems, improve energy efficiency, add an elevator and make the building ADA compliant, and renovate the existing building on site. This option did not include a civic center, but did include a larger meeting room (with seating at tables for approximately 250) and other meeting spaces.

(2) A meeting center could be built as a stand-alone facility and the agricultural agencies stay in the existing building. This would not address the current and future space needs for these agencies and their customers. This option would require hiring additional staff to run the facility.

(3) Relocation of the agricultural agencies to a new facility would free up the County Agricultural Building for other county departments that need to be in the county government complex. The agricultural agencies do not need to be located in the current county government complex. Grant funding is probably not an option due to the lack of grant opportunities.

## Current Stage of Project

The county has purchased approximately 100 acres to the west of Central Carolina Community College's Pittsboro Campus for the Agriculture & Conference Center and future college expansion. On September 15, 2014 the Board of Commissioners awarded the base bid for the project and construction began November 17, 2014. A February opening had been anticipated but the contractor is behind schedule and the facility is expected to open later in 2016.

## Description of Land Needs

The county purchased approximately 100 acres west of Pittsboro on US Business 64. The property would also be used for future expansion of CCCC. CCCC officials have been involved in master planning the site.

## Professional Services Needed

Architectural design and construction management were needed.

## Operating Impact

Additional funds will be needed for utilities, building maintenance, and expanded programs. Some of this cost would be offset by revenue from rental of the meeting spaces and facility.

# County Buildings - Chatham County Detention Center

Substantially Complete

Construct a 60,000-square-foot jail with a build out capacity of 133 beds, and continue efforts to decrease the jail population.

Project Budget	Budget	Current									Project Totals	
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023		
<b>Project Element</b>												
Construction	14,542,766	14,697,311	122,006	0	0	0	0	0	0	0	0	14,819,317
Contingency	111,019	0	0	0	0	0	0	0	0	0	0	0
Debt Issuance Cost	181,279	181,279	0	0	0	0	0	0	0	0	0	181,279
Design, Engineering & Construction Ad	1,093,909	1,120,315	0	0	0	0	0	0	0	0	0	1,120,315
Equipment	360,000	264,206	51,218	0	0	0	0	0	0	0	0	315,424
Land	1,268	1,268	0	0	0	0	0	0	0	0	0	1,268
Miscellaneous Contracts	115,695	107,126	0	0	0	0	0	0	0	0	0	107,126
Pay Interest (from Bond Premium)	375,792	0	236,999	0	0	0	0	0	0	0	0	236,999
<b>Total Project Element</b>	<b>16,781,728</b>	<b>16,371,505</b>	<b>410,223</b>	<b>0</b>	<b>16,781,728</b>							
<b>Funding Source</b>												
Bond Premium	1,284,518	1,172,009	0	0	0	0	0	0	0	0	0	1,172,009
Debt--Limited Obligation Bonds	15,492,710	15,195,404	410,223	0	0	0	0	0	0	0	0	15,605,627
Interest	4,500	4,092	0	0	0	0	0	0	0	0	0	4,092
<b>Total Funding Source</b>	<b>16,781,728</b>	<b>16,371,505</b>	<b>410,223</b>	<b>0</b>	<b>16,781,728</b>							
<b>Operating Effect</b>												
Additional Revenues	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service	0	902,000	1,334,425	1,309,825	1,285,225	1,260,625	1,236,025	1,198,225	1,165,625	1,133,025	10,825,000	10,825,000
Increased Operating Costs	0	1,330,961	1,483,230	1,526,527	1,571,123	1,617,057	1,664,368	1,713,099	1,763,292	1,814,991	14,484,648	14,484,648
Transfer from Debt Reserve	0	-902,000	-1,334,425	-1,309,825	-1,285,225	-1,260,625	-1,236,025	-1,198,225	-1,165,625	-1,133,025	-10,825,000	-10,825,000
<b>Total Operating Effect</b>	<b>0</b>	<b>1,330,961</b>	<b>1,483,230</b>	<b>1,526,527</b>	<b>1,571,123</b>	<b>1,617,057</b>	<b>1,664,368</b>	<b>1,713,099</b>	<b>1,763,292</b>	<b>1,814,991</b>	<b>14,484,648</b>	<b>14,484,648</b>

## Define Problem

The county is legally responsible for confining inmates and providing funding to meet basic legal requirements for jail inmates. The maximum total capacity for inmates in the jail is 51. Of these beds, 42 are male beds, 6 are female beds and 3 are medical/segregation beds. If the 3 medical/segregation beds are filled and additional inmates require segregation, the county must either pay another county for segregation bed space or assign staff to almost continual monitoring of inmates, leaving other responsibilities unstaffed. So while the jail's total capacity is 51 inmates, parts of the jail can be at or over capacity before reaching 51 beds. In October of 2012, two of the three segregation beds were already filled when two additional males were admitted as co-defendants charged with murder and therefore requiring segregation. This put the jail over capacity for the segregation of inmates. When inmate population is at or over 85% capacity (43 inmates), our ability to effectively manage the population is greatly reduced. Jail crowding increases prisoner and staff tensions, wear and tear on facility and equipment, budgetary problems from staffing to medical costs, and an inability to meet the state minimum detention standards.

Though not as apparent, crowding creates problems for other justice system officials. Judges, prosecutors, and other officials often find crowding a severe constraint in cases where jailing offenders appears necessary but space is unavailable. Prosecutors, public defenders, and pretrial services officers find their functions impaired by delayed access to inmates caused by difficulty in processing large numbers of offenders. Court functions may suffer when crowding

affects the movement of inmates to and from scheduled appearances.

## Recommended Solution

1. Maintain pretrial release efforts. Pretrial is effective at reducing the population of a majority of misdemeanor cases and some felony cases.  
2. Accelerate court dockets by increasing access to court. 3. Transfer inmates to other counties. Sheriff Webster has negotiated an arrangement with Harnett County Jail to hold inmates at a rate of \$50/day plus medical costs, which is well below Chatham's cost per inmate. This arrangement is short-term, not guaranteed, and will increase

## Alternatives

1. Do nothing: The problems associated with jail overcrowding are outlined above. Overcrowding is likely to worsen as the county's population increases. This situation puts the county in some legal jeopardy from civil suits. Even if the county is willing to take this risk, judges could, for safety reasons, order inmates to be held at another facility at the county's cost. Additionally, the current jail is in need of repairs for leaks and replacement of shower pipes that are of concern to the state inspector, and it needs to be repainted. The cost of repainting has been estimated at \$80,000.
2. Delay building a jail and rent beds from adjacent counties: In FY 2012 the County had to rent beds, and in FY 2013 the County has sent inmates to a Division of Adult Correction facility for safekeeping at a charge of \$40/day due to insufficient availability of segregation beds. Harnett County recently has agreed to house Chatham inmates on a temporary basis for \$50 per day plus medical expenses. Harnett officials will not guarantee available beds or a timeframe for this arrangement. While this cost is very reasonable, other options, especially ones that require inmates to be transported long distances, could be significantly more expensive.
3. Increase population control measures through electronic house arrest: In larger facilities, electronic house arrest is used to control the inmate population. Because of the small size of the facility and the measures already taken by jail staff, electronic house arrest would not be an effective option by itself. Having an electronic monitoring program as part of pretrial release is more effective and efficient.
4. Participate in the construction of a regional jail: In 2005, the county participated in a study to determine if several counties could share a regional jail. This option was cost effective only for the host county. Subsequently, Moore County, one of the counties involved in the study, decided to construct its own jail.
5. Build a new jail: Several options exist for building a new jail, including:
  - Add on to the existing jail—this option fails to address the problems with the existing jail and limits future expansion because of the site. This option was not evaluated by the consultant because it does not address existing problems with the facility. The site is currently limited, but will become more so with an expansion of the Emergency Operations Center and site improvements.
  - Build a 60,000-square-foot jail with a build out capacity of 133 beds on property currently owned by the county that will allow the jail to be easily expanded.

## Current Stage of Project

The project is substantially complete. The Sheriff's Office occupied the new detention center on May 12, 2015. Issues concerning HVAC humidity control are being repaired under warranty. As of October 2015, all new positions for the jail have been hired.

## Professional Services Needed

Professional design and architecture were needed.

## Operating Impact

Additional funds will be needed for additional staff and operating costs. Revenues shown in previous years reflect \$40/bed for one cell block. This is the rate offered by the NC Department of Corrections for misdemeanor offenders, which the county could be required to take in the future. However, the state has imposed additional requirements to house these prisoners which the Sheriff's Office says we cannot meet with current staffing. Since meeting with the US Marshal's Office, staff is less certain the jail will be used for federal inmates. The demand is currently met in the region by other jails. This significantly reduces the revenue available for housing outside inmates. Staff is planning a three-month overlap between opening the new jail and operation of the current one. This overlap will help with unforeseen construction delays and implementation of the new detention facility transition process. Staff will utilize this three-month overlap for training new and current detention staff in new operational procedures, ensuring that the facility has all required equipment, and transferring current equipment and inmates to the new facility in a safe manner.

# Parks - Briar Chapel Park Improvements

Approved-No Contracts (Part)

Accept donation of the 62-acre Briar Chapel Park with existing regulation soccer, football, baseball, and softball field; fence and light the athletic fields; and construct a restroom/concessions building, trails, and other improvements over several phases using recreation fees paid by the Briar Chapel development.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	16,750	18,950	0	0	0	0	0	0	0	0	18,950
Construction	0	0	0	0	0	0	0	0	0	0	0
Contingency	60,291	0	44,438	25,194	0	0	0	0	0	0	69,632
Engineering & Construction Administrati	82,999	0	73,499	0	0	0	0	0	0	0	73,499
Equipment	87,800	0	73,385	14,400	0	0	0	0	0	0	87,785
Facilities	1,024,140	469,774	444,375	251,938	0	0	0	0	0	0	1,166,087
Other Contracted Services	1,180	10,680	22,000	0	0	0	0	0	0	0	32,680
Permits & Connection Fees	12,600	0	12,600	0	0	0	0	0	0	0	12,600
Technology	17,300	0	17,300	0	0	0	0	0	0	0	17,300
<b>Total Project Element</b>	<b>1,303,060</b>	<b>499,404</b>	<b>687,597</b>	<b>291,532</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,478,533</b>
<b>Funding Source</b>											
Grants, Gifts, Etc.	250,000	0	250,000	0	0	0	0	0	0	0	250,000
Recreation Exaction Fee--Briar Chapel	1,053,060	499,404	437,597	291,532	0	0	0	0	0	0	1,228,533
<b>Total Funding Source</b>	<b>1,303,060</b>	<b>499,404</b>	<b>687,597</b>	<b>291,532</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,478,533</b>
<b>Operating Effect</b>											
Additional Revenues	0	0	0	0	-1,580	-1,580	-1,580	-1,580	-1,580	-1,580	-9,480
Increased Operating Costs	0	59,600	64,097	86,181	88,689	91,273	93,934	96,675	99,498	102,408	782,355
<b>Total Operating Effect</b>	<b>0</b>	<b>59,600</b>	<b>64,097</b>	<b>86,181</b>	<b>87,109</b>	<b>89,693</b>	<b>92,354</b>	<b>95,095</b>	<b>97,918</b>	<b>100,828</b>	<b>772,875</b>

## Define Problem

As part of its conditional use permit (CUP), Briar Chapel development was required to construct a park. However, the CUP did not specify the level to which the facilities must be developed. Briar Chapel has constructed a 62-acre facility consisting of parking, roadways and a football, regulation soccer, and two baseball fields. The athletic fields lacked fencing, lighting, bleachers, and restroom and concessions that would make the fields optimal for use. Six years ago, Briar Chapel officials approached the county about giving the park to the county. Based on the 2009 Parks and Recreation Comprehensive Master Plan, many recreation facilities are needed in the county, including nine soccer fields, four football fields and five softball fields. Accepting the park from Briar Chapel and making improvements would alleviate part of this deficit. In addition, several athletic groups, including East Chatham Baseball, Chatham Soccer League, and East Chatham Football Association, have expressed interest in using the fields.

## Recommended Solution

Using recreation fees paid by Briar Chapel, the county would make improvements to the fields as fees are collected. The facilities will be constructed in priority order as funds become available through Briar Chapel recreation fees and possibly with grant money from Parks and Recreation Trust Fund (PARTF).

1. Fencing of all fields
2. Lighting of the football field
3. Restroom/concession building and supporting utilities

4. Lighting of the parking lots
5. Storage shed
6. Entrance sign and gate
7. Bleachers and benches for all fields
8. Soccer goals
9. Lighting of two baseball/softball fields
10. Dugouts, bases and pitching mounds
11. Walking trail
12. Scoreboard
13. Playground with shade structure
14. Directional signage

### Alternatives

The county could have chosen not to accept the park and allow Briar Chapel to operate it through its Homeowners Association. The CUP does require that the park be open to the public. Since there is no requirement that Briar Chapel develop the park beyond the state the county received it, the athletic facilities would be less than optimal. Fencing was needed on the baseball fields to keep balls from hitting spectators. The soccer field needed fencing to keep balls from rolling down a steep embankment. All athletic fields need bleachers for spectators. Without lighting, the fields can only be used during daylight hours. Without restroom and concession facilities, the park would not provide the amenities most participants and spectators expect and game play would be limited. In addition, the Building Inspections Division has stated that a restroom will be required.

### Current Stage of Project

Briar Chapel completed construction of the athletic fields, two gravel parking lots, and main entrance, paved the entrance road and constructed the entrance bridge. The county took ownership of the park in June 2012. Using recreation fees from Briar Chapel, the county completed fencing, lighting of the football field and gates. Bids on construction of the restroom/concessions stand are due November 12, 2014. The restroom/concessions stand construction was completed in August 2015. Staff will complete purchase of soccer goals, bases, and pitcher mounds by the end of FY 2016. The county applied for PARTF grant money for FY 2014 and was not funded. Staff again applied for FY 2015 for facilities that PARTF is more likely to fund, such as the playground, walking trail, lighting ball fields and picnic shelter. As of September 2015, the County had not received notification about the status of the PARTF grant application. If PARTF funds are not received, the county will proceed with constructing these facilities as recreation fees collected from Briar Chapel permit.

### Relation to Other Projects

Improvements to Briar Chapel Park are related to construction of other parks. These facilities will provide the basic infrastructure for the county and community organizations to offer recreational programming, such as league play, in other areas of the county.

### Professional Services Needed

Architectural services were needed to design the restroom/concessions building. Engineering and construction administration will be needed for water and sewer connections and designing the remaining facilities. Existing county staff has provided oversight to construction and installation of other improvements.

### Operating Impact

Additional funds will be needed to operate and maintain the facility. Additional revenues will be realized from renting the concession stand and fields and from program fees.

# Parks - Northeast District

Substantially Complete

Develop a district park located in the northeast quadrant of the county on 66 acres located on Big Woods Road.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	1,663,213	1,579,867	3,000	0	0	0	0	0	0	0	1,582,867
Contingency	0	0	0	0	0	0	0	0	0	0	0
Design, Engineering & Construction Ad	225,543	160,577	0	0	0	0	0	0	0	0	160,577
Equipment	31,372	22,772	0	0	0	0	0	0	0	0	22,772
Facilities	0	16,566	0	0	0	0	0	0	0	0	16,566
Land	1,382,287	1,382,287	0	0	0	0	0	0	0	0	1,382,287
Other Contracted Services	0	64,966	0	0	0	0	0	0	0	0	64,966
<b>Total Project Element</b>	<b>3,302,415</b>	<b>3,227,035</b>	<b>3,000</b>	<b>0</b>	<b>3,230,035</b>						
<b>Funding Source</b>											
Capital Reserves	1,081,636	1,006,256	3,000	0	0	0	0	0	0	0	1,009,256
Grants, Gifts, Etc.	838,486	838,486	0	0	0	0	0	0	0	0	838,486
Interest	6	6	0	0	0	0	0	0	0	0	6
Recreation Exaction Fee	1,382,287	1,382,287	0	0	0	0	0	0	0	0	1,382,287
<b>Total Funding Source</b>	<b>3,302,415</b>	<b>3,227,035</b>	<b>3,000</b>	<b>0</b>	<b>3,230,035</b>						
<b>Operating Effect</b>											
Additional Revenues	0	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-9,000
Increased Operating Costs	0	68,564	70,621	72,739	74,921	77,169	79,484	81,869	84,325	86,855	696,546
<b>Total Operating Effect</b>	<b>0</b>	<b>67,564</b>	<b>69,621</b>	<b>71,739</b>	<b>73,921</b>	<b>76,169</b>	<b>78,484</b>	<b>80,869</b>	<b>83,325</b>	<b>85,855</b>	<b>687,546</b>

## Define Problem

Based on the 2009 Parks and Recreation Comprehensive Master Plan, the county should construct a number of facilities to meet the recreation needs of county residents. When facilities at Northwest Park and Briar Chapel are complete, the county will still need seven lighted baseball fields, four lighted softball fields, three footballs, seven soccer fields, 14 picnic shelters, 16 playground activities, and 12 miles of trails, according to standards identified in the master plan. In addition, the northeast area of the county is growing faster than any other area in the county. In FY 2008, the county purchased approximately 66 acres on Big Woods Road in order to construct a park in the northeastern quadrant. The land purchase was funded from recreation fees. Construction included a baseball field, multi-purpose field, walking trail, shelter, playground, and needed infrastructure, such as parking and a concession/restroom building. The master plan calls for Phase 2 improvements to include a second restroom/concession building, a second playground, field lighting, a mini picnic shelter, additional one-quarter-mile walking trail and horseshoes.

## Recommended Solution

Between the facilities offered in the Southwest District Park, Briar Chapel, Northwest Park, and Northeast Park, the county would eliminate many of the facility deficits identified in the master plan and provide basic infrastructure for the Recreation Department to run its existing programs.

### **Alternatives**

The county has already received a PARTF grant for Phase 1 and was obligated to construct the facilities as outlined in the agreement with the state. The main issue with this project is deciding whether Phase 2 should follow the recommendation of the master plan or be modified to include a recreation center, a more expensive option. Because of poor soils, staff recommends that Phase 2 not include the recreation center.

### **Current Stage of Project**

Phase 1 construction began October 2010 and was completed July 2011. A shed to store equipment for dragging and prepping fields and dugouts for the ball field were completed in September 2012. Bleachers were installed, but a permit for the scoreboard could not be issued due to conflicting interpretations of whether the bleachers met requirements of the American Disability Act (ADA). In August 2015 the County sold the existing bleachers and purchased three ADA-compliant bleachers. One set was installed at the multipurpose field and two were installed at the softball field. The bleacher project is complete. When the scoreboard is purchased and installed, the project will be complete.

### **Relation to Other Projects**

The Northeast District Park's development is related to construction of the Southwest District Park, Northwest District Park, and Briar Chapel Park. These facilities will provide the basic infrastructure for the county to offer recreational programming, such as league play, in other areas of the county. Since funding is limited, the county must prioritize park improvements.

### **Professional Services Needed**

Design and engineering services and construction management were needed.

### **Operating Impact**

Additional funds were needed for park staff and grounds maintenance.

# Schools - Bleacher Replacements (Indoor)

Approved-No Contracts (Part)

Renovate and/or install new indoor bleachers at Chatham Central, Jordan-Matthews, J.S. Waters, Moncure, and Horton Middle.

Project Budget	Budget	Prior to FY 2016	Current								Project Totals	
			Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023		
<b>Project Element</b>												
Construction	392,088	119,838	0	0	0	272,250	0	0	0	0	0	392,088
<b>Total Project Element</b>	392,088	119,838	0	0	0	272,250	0	0	0	0	0	392,088
<b>Funding Source</b>												
Capital Reserves	0	0	0	0	0	272,250	0	0	0	0	0	272,250
General Fund Fund Balance	392,088	119,838	0	0	0	0	0	0	0	0	0	119,838
<b>Total Funding Source</b>	392,088	119,838	0	0	0	272,250	0	0	0	0	0	392,088
<b>Operating Effect</b>												
Contribution to Capital Reserve	0	0	68,063	68,063	68,062	68,062	0	0	0	0	0	272,250
<b>Total Operating Effect</b>	0	0	68,063	68,063	68,062	68,062	0	0	0	0	0	272,250

### Define Problem

The high schools are still using bleachers that were installed in the 1950s. The bleachers at J. S. Waters, Moncure, and Horton Middle are the original bleachers from when these schools were built in the 1950s. The age of the bleachers makes it difficult to obtain parts to keep them operating properly. Within the next five to 10 years parts will be very difficult, if not impossible, to obtain.

### Recommended Solution

Renovate and/or install new indoor bleachers to comply with recommendations of the bleacher inspector and reduce liability.

### Current Stage of Project

Chatham Central and Jordan-Matthews High Schools replacements are complete. J.S. Waters, Moncure and Horton Middle are scheduled for FY 2019.

### Relation to Other Projects

The project is related to the Northwood renovation project.

# Schools - High School Capacity Expansion

New

Construct a new 169,000 square-foot high school in the northeast quadrant of the county to open August 2020/2021 or expand the capacity of Northwood High School and push the new high school out 5 years to meet current overcrowding problems and provide for the expected growth in the student population.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	2,534,428	327,175	414,129	426,871	0	0	0	0	884,801	884,801	2,937,777
Construction	43,127,704	0	0	5,292,388	10,834,811	5,875,801	0	0	0	17,969,876	39,972,876
Contingency	2,263,014	0	0	264,619	541,741	293,790	0	0	0	0	1,100,150
Engineering & Construction Administrati	0	0	4,396	127,490	127,001	101,113	0	0	0	0	360,000
Furnishings & Equipment	1,926,100	0	0	0	717,500	822,500	0	0	0	0	1,540,000
Other Contracted Services	1,429,024	46,536	36,111	72,500	72,222	39,167	0	0	397,465	397,465	1,061,466
Temporary Classrooms for Flex Space	0	0	61,364	238,636	0	300,000	0	0	0	0	600,000
<b>Total Project Element</b>	<b>51,280,270</b>	<b>373,711</b>	<b>516,000</b>	<b>6,422,504</b>	<b>12,293,275</b>	<b>7,432,371</b>	<b>0</b>	<b>0</b>	<b>1,282,266</b>	<b>19,252,142</b>	<b>47,572,269</b>
<b>Funding Source</b>											
Debt--Limited Obligation Bonds	51,280,270	373,711	516,000	6,422,504	12,293,275	7,432,371	0	0	1,282,266	19,252,142	47,572,269
<b>Total Funding Source</b>	<b>51,280,270</b>	<b>373,711</b>	<b>516,000</b>	<b>6,422,504</b>	<b>12,293,275</b>	<b>7,432,371</b>	<b>0</b>	<b>0</b>	<b>1,282,266</b>	<b>19,252,142</b>	<b>47,572,269</b>
<b>Operating Effect</b>											
Debt Service	0	0	0	0	1,350,000	2,775,000	2,703,750	2,632,500	2,561,250	4,089,188	16,111,688
Increased Operating Costs	0	0	0	0	0	0	0	2,022,105	2,082,768	2,145,251	6,250,125
Transfer from Debt Reserve	0	0	0	0	-1,350,000	-2,775,000	-2,703,750	-2,632,500	-2,561,250	-4,089,188	-16,111,688
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,022,105</b>	<b>2,082,768</b>	<b>2,145,251</b>	<b>6,250,125</b>

## Define Problem

The building of new schools is a complex process. An important step in the process is the determination of location, size, and timing (i.e., when does the projected enrollment necessitate a new school). To that end, Chatham County Schools has continued its long-standing relationship with OR/Ed to assist in making fiscally responsible, timely, and appropriate decisions. The OR/Ed consultants are in the process of conducting interviews with planning and permitting personnel, verifying and updating (as necessary) growth projections and optimization scenarios. The current proposal may need to be modified if there are significant changes to the OR/Ed data.

In 2007, a study conducted by OR/Ed (Operations Research/Education Laboratory of North Carolina State University) determined that Northwood and Jordan-Matthews had reached their brick and mortar capacities. This study recommended that a new high school be constructed in the northeast part of the county to alleviate overcrowding

Since 2007, additions have been added to both schools to meet this growth. At Jordan-Matthews a new cafeteria was added, the existing cafeteria was renovated to create additional classroom space, and additional classroom modular units were placed on the campus. At Northwood an eight-classroom modular building and a new Fine Arts wing were added as well.

Between 2007 and 2011 population growth in Chatham slowed, and construction of a new high school was pushed back in order to ensure that completion of the

# Schools - High School Capacity Expansion

New

school would be accompanied by the necessary student population. One of the main goals was to make sure programming was not diminished at Northwood High School.

Northwood has exceeded its core capacity leading the board of education to request an expansion to include the following core capacity issues:

- Media center does not meet current DPI guidelines
- Dining area square footage does not allow for multiple lunch options
- Current gymnasium is over-used
- Student parking is limited to less than half of eligible drivers
- Current office suite has no capacity for additional administrators or counselors
- An additional vehicular entrance is needed for current and future growth.

Since the Board of Education vote, OR/Ed has shown preliminary population projections that indicate moving forward with the new high school as currently scheduled may be the better course of action. The School system is working with OR/Ed to finalize these numbers.

The 2016-2022 Capital Improvements Plan included funds for a feasibility study to develop an estimate for the expansion of Northwood High School.

Changes in the projected number of students, combined with the significant expense and complexity involved in constructing a new school or an expansion, provide a challenge to plans to accommodate growth. Chatham County Schools and County staff want to ensure that all the information needed is in hand to make the best decision about how to move forward on high school capacity.

## **Recommended Solution**

Construct a new 169,000 square-foot high school in the northeast quadrant of the county to open August 2020 or expand the capacity of Northwood High School and push the new high school out 5 years to meet current overcrowding problems and provide for the expected growth in the student population.

The new high school would be built to accommodate up to 800 students initially, with the core capacity sized to accommodate an additional 400 students. The expansion of Northwood would address the core capacity issues and bring the brick and mortar capacity to 1,500 students. Either of these solutions can be funded through the county's debt model without additional revenue.

## **Alternatives**

1. Build an addition to Northwood to expand the brick and mortar capacity to 1,500 students to provide a temporary solution to the need for additional high school capacity. This will create time needed to properly locate/time the new high school to most effectively meet current and future growth. However, based on OR/Ed projections, Northwood could exceed the expanded capacity in less than ten years.
2. Construct a new high school in the northeast area of Chatham County. If this option is pursued without expanding Northwood, Northwood will continue to be overcrowded until a new high school can be completed.
3. Redistrict the entire district at the high school level to make use of empty seats in the western part of the county. Note that this will negatively impact transportation-related issues (length of ride, efficiency ratings, etc.).
4. Do nothing and continue adding modular units to Northwood and making the best of the core capacity related issues.

## **Current Stage of Project**

An architectural contract has been awarded for construction of a new high school, and the schematic design is complete. A feasibility study has been completed for the expansion of Northwood High School.

## **Description of Land Needs**

Land on Jack Bennett Road was owned by the Board of Education but was turned over to the County. An appropriately located alternative site with a minimum of 52 developable acres will need to be identified and purchased to meet the needs of the school.

# Schools - High School Capacity Expansion

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New

## **Professional Services Needed**

Detailed architectural drawings and construction management will be needed.

## **Operating Impact**

Additional funds will be needed for utilities, maintenance, and locally funded personnel.

# Schools - Joint School Bus & County Garage

Build a new garage to be shared by the county and Chatham County Schools.

Project Budget	Budget	Current		Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Project Totals
		Prior to FY 2016	Year: FY 2016								
<b>Project Element</b>											
Architectural Design & Construction Ad	692,687	365,802	326,885	0	0	0	0	0	0	0	692,687
Construction	6,297,153	0	5,761,182	0	0	0	0	0	0	0	5,761,182
Contingency	774,854	0	592,049	0	0	0	0	0	0	0	592,049
Equipment	27,500	0	60,000	0	0	0	0	0	0	0	60,000
Other Contracted Services	207,806	2,800	205,006	0	0	0	0	0	0	0	207,806
Pay Interest (from Bond Premium)	0	0	686,276	0	0	0	0	0	0	0	686,276
<b>Total Project Element</b>	<b>8,000,000</b>	<b>368,602</b>	<b>7,631,398</b>	<b>0</b>	<b>8,000,000</b>						
<b>Funding Source</b>											
Bond Premium	0	0	0	0	0	0	0	0	0	0	0
Debt--Limited Obligation Bonds	8,000,000	368,602	7,631,398	0	0	0	0	0	0	0	8,000,000
<b>Total Funding Source</b>	<b>8,000,000</b>	<b>368,602</b>	<b>7,631,398</b>	<b>0</b>	<b>8,000,000</b>						
<b>Operating Effect</b>											
Debt Service	0	328,574	481,117	638,914	624,420	609,516	740,800	571,983	556,057	539,321	5,090,702
Decreased Operating Costs	0	0	0	-175,619	-180,887	-186,314	-191,903	-197,660	-203,590	-209,698	-1,345,671
Increased Operating Costs	0	0	87,229	276,673	256,545	264,241	272,168	280,333	288,743	297,407	2,023,339
Transfer from Debt Reserve	0	-328,574	-481,117	-638,914	-624,420	-609,516	-740,800	-571,983	-556,057	-539,321	-5,090,702
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>87,229</b>	<b>101,054</b>	<b>75,658</b>	<b>77,927</b>	<b>80,265</b>	<b>82,673</b>	<b>85,153</b>	<b>87,709</b>	<b>677,668</b>

## Define Problem

A needs assessment and building program completed by a consultant in 2011 found that both the county and school garage facilities were undersized, inefficient for operations and outdated. The consultant recommended that both facilities be replaced.

The existing county garage is 2,415 square feet and is in very poor condition. The consultant found that the garage should be approximately 4,293 square feet to provide adequate service. Some of the issues found with the county facility include:

- Overall, the county garage is in poor condition
- There is insufficient storage space
- Flies are a problem during summer months, presumably due to the facility's location at the closed landfill
- The parking area is not paved, which creates a lot of dust and dirt settlement within the building.
- There is no customer waiting area or restroom.
- The existing bay spaces get crowded when two vehicles are being worked on simultaneously.
- A dedicated, organized, and adequately sized parts room is needed.

The existing school garage is 10,628 square feet on four acres and is inadequate. The consultant found that the garage should be approximately 21,546 square feet to provide adequate service.

Some of the issues found with the existing school building include:

- The building overall and the dimensions of usable space within the bus garage are inadequate for servicing the 128-bus and 72-vehicle fleet. The facility has four bus bays and a half bay with a short door for fleet vehicles.
- Additional space is needed for parking buses (the existing facility does not have enough property for all buses to be housed at the garage during the summer). Approximately 12 acres is needed for the current bus and vehicle fleet.
- Office space is inadequate in size and configuration for the responsibilities assigned.
- The bus bays are too short to accommodate the new large capacity buses
- There are no permanently installed indoor bus vehicle lifts.
- The outdoor “bus lift” consists of four moveable, independently adjusted hydraulic jacks set outdoors
- An adequately sized and dedicated tire changing room and a significantly larger and separate tire storage area are needed
- The garage does not have a bay or area available to do body work.
- The parts room is too small to accommodate an adequate inventory of bus and fleet vehicle parts.
- The department would benefit from having a formal conference/meeting room.
- A large multipurpose/meeting room on the premises would prove efficient for transportation staff training as well as for bus driver training.
- Restrooms are not ADA compliant.

The regional director has stated that the Chatham County Schools bus garage is the worst in the entire region.

## **Recommended Solution**

Build a joint garage facility to be shared by the county and Chatham County Schools. The facility could provide service for school buses, fleet vehicles for both the county and school system, and also large county solid waste and utility vehicles. Because the school system is a larger operation, the new joint garage would be operated by the schools with financial assistance from the county.

## **Alternatives**

Approximately one million dollars can be saved if the county’s portion of the project is removed. The school system had proposed giving the county the existing bus garage.

## **Current Stage of Project**

Design is complete. Bids were received on September 9, 2014. Construction is approximately 75% complete. Slabs are poured, the building is framed, inside walls are up, and much of the roof is in place. Projected move in date is the last week of March 2016.

## **Description of Land Needs**

Twelve to 25 acres will be needed in a centralized location, preferably along US 64 between Pittsboro and Siler City, where buses and large trucks could easily enter and exit the facility. The county already owns land near the closed landfill that will be used for this purpose.

## **Professional Services Needed**

Architectural and engineering services were needed.

# Schools - Locker Room Renovations

Approved-No Contracts

Renovate the locker rooms at Jordan-Matthews, Chatham Central, Moncure and JS Waters schools.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	662,800	0	0	0	275,000	287,500	96,000	0	0	0	658,500
Contingency	66,280	0	0	0	27,500	28,750	9,600	0	0	0	65,850
<b>Total Project Element</b>	<b>729,080</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>302,500</b>	<b>316,250</b>	<b>105,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>724,350</b>
<b>Funding Source</b>											
Capital Reserves	729,080	0	0	0	302,500	316,250	105,600	0	0	0	724,350
<b>Total Funding Source</b>	<b>729,080</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>302,500</b>	<b>316,250</b>	<b>105,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>724,350</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	129,308	153,759	283,067	131,817	26,400	0	0	0	724,350
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>129,308</b>	<b>153,759</b>	<b>283,067</b>	<b>131,817</b>	<b>26,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>724,350</b>

## Define Problem

The dressing/locker rooms in some of our schools require renovation to meet current standards. Floors are cracked, thus causing tripping hazards; restroom facilities are inadequate; and home and visiting teams share one restroom. Some of the shower areas are in disrepair. While they are functional, they are not of the same quality as the rest of the building. Lockers in the male dressing rooms require renovation, and in one case, they are made of wood which can absorb germs and bacteria.

## Recommended Solution

The school system requests to renovate the locker rooms to bring them up to the standards of the rest of the district's gyms. In the last few years, the school system has replaced flooring, installed energy efficient lighting, replaced bleachers, re-painted, renovated restrooms, added concession areas, enhanced entranceways, and installed HVAC in the high school gyms. This final project will bring all aspects of the gyms to the same quality.

## Professional Services Needed

Architectural and engineering services will be needed.

# Schools - Mobile Classrooms

Purchase modular classrooms to alleviate overcrowding at Siler City Elementary and Northwood High School, and keep two in reserve to address short-term future needs.

<b>Project Budget</b>	<b>Budget</b>	<b>Prior to FY 2016</b>	<b>Current Year: FY 2016</b>	<b>Year 1: FY 2017</b>	<b>Year 2: FY 2018</b>	<b>Year 3: FY 2019</b>	<b>Year 4: FY 2020</b>	<b>Year 5: FY 2021</b>	<b>Year 6: FY 2022</b>	<b>Year 7: FY 2023</b>	<b>Project Totals</b>
<b>Project Element</b>											
Construction	287,000	0	167,000	126,000	0	0	0	0	0	0	293,000
Design, Engineering & Construction Ad	85,000	11,225	68,925	0	0	0	0	0	0	0	80,150
Other Contracted Services	0	4,850	0	0	0	0	0	0	0	0	4,850
<b>Total Project Element</b>	<b>372,000</b>	<b>16,075</b>	<b>235,925</b>	<b>126,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>378,000</b>
<b>Funding Source</b>											
Capital Reserves	106,662	0	0	112,662	0	0	0	0	0	0	112,662
Transfer from Water Capital Reserve	265,338	16,075	235,925	13,338	0	0	0	0	0	0	265,338
<b>Total Funding Source</b>	<b>372,000</b>	<b>16,075</b>	<b>235,925</b>	<b>126,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>378,000</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	53,331	59,331	0	0	0	0	0	0	112,662
Increased Operating Costs	0	0	6,377	9,757	10,050	10,352	10,662	10,982	11,311	11,651	81,142
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>59,708</b>	<b>69,088</b>	<b>10,050</b>	<b>10,352</b>	<b>10,662</b>	<b>10,982</b>	<b>11,311</b>	<b>11,651</b>	<b>193,804</b>

## Define Problem

With one NC certified megasite in the western side of the county, another megasite being readied in the southeast, and the Chatham Park development coming in Pittsboro, Chatham County is on the brink of unprecedented growth.

Some schools, particularly Siler City Elementary and Northwood High School, are currently overcrowded. Siler City Elementary, with a brick and mortar capacity of 671 and a serviceable capacity of 768, currently has an average daily membership of 699. The school is floating seven English as a second language (ESL) classes, one art class, one academically or intellectually gifted (AIG) class, one-half of a music teacher and one-half of a physical education teacher.

Northwood High School has a brick and mortar capacity of 1,005 and a serviceable capacity of 1,330. The current average daily membership is 1,289. In addition to classroom space, Northwood needs more cafeteria and office space for teachers, counselors, and administrators.

A short-term solution to overcrowding is needed to provide the schools with additional space and give the school system time to develop a plan that will account for the impending growth.

## Recommended Solution

Purchase six modular classrooms; three for Siler City Elementary, one for Northwood High School, and two to be placed as needed.

## Alternatives

One alternative to purchasing modular classrooms is to immediately redistrict student attendance zones.

# Schools - Mobile Classrooms

## **Current Stage of Project**

Four modular classrooms were purchased and set up during the summer of 2015. Three are located at Siler City Elementary and one at Northwood High School. All are currently being used as classroom spaces.

## **Professional Services Needed**

Architectural and engineering design services will be needed.

## **Operating Impact**

Additional funds will be needed for utilities to operate the modular classrooms.

# Schools - Northeast Elementary School

New

Construct an elementary school in the northeastern area of Chatham County.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Architectural Design & Construction Ad	0	0	0	0	675,493	353,335	0	0	0	0	1,028,828
Construction	0	0	0	0	0	7,452,993	15,627,244	721,257	0	0	23,801,494
Contingency	0	0	0	0	0	745,299	1,562,724	72,126	0	0	2,380,149
Engineering & Construction Administrati	0	0	0	0	0	110,517	231,729	10,695	0	0	352,941
Furnishings & Equipment	0	0	0	0	0	0	1,759,660	175,965	0	0	1,935,625
Land & Easements	0	0	0	0	600,000	0	0	0	0	0	600,000
Other Contracted Services	0	0	0	0	150,114	150,114	150,114	6,928	0	0	457,270
<b>Total Project Element</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,425,607</b>	<b>8,812,258</b>	<b>19,331,471</b>	<b>986,971</b>	<b>0</b>	<b>0</b>	<b>30,556,307</b>
<b>Funding Source</b>											
Debt--Limited Obligation Bonds	0	0	0	0	1,425,607	8,812,258	19,331,471	986,971	0	0	30,556,307
<b>Total Funding Source</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,425,607</b>	<b>8,812,258</b>	<b>19,331,471</b>	<b>986,971</b>	<b>0</b>	<b>0</b>	<b>30,556,307</b>
<b>Operating Effect</b>											
Debt Service	0	0	0	0	0	727,375	1,454,750	1,454,750	3,119,750	3,036,500	9,793,125
Increased Operating Costs	0	0	0	0	0	0	0	1,309,980	1,349,279	1,389,757	4,049,016
Transfer from Debt Reserve	0	0	0	0	0	-727,375	-1,454,750	-1,454,750	-3,119,750	-3,036,500	-9,793,125
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,309,980</b>	<b>1,349,279</b>	<b>1,389,757</b>	<b>4,049,016</b>

## Define Problem

The Northeast portion of Chatham County is experiencing growth. The Operations Research and Education Laboratory at North Carolina State University (OR/Ed) has projections for North Chatham Elementary that indicate the school will exceed brick and mortar capacity in the next five years. Perry Harrison's current enrollment has outpaced OR/Ed projections and will exceed serviceable capacity in the same amount of time. These same projections show an addition 250 students at these two schools in the next ten years without factoring in growth escalation and the potential impact of Chatham Park. Both schools provide space for pre-K students as well as regular elementary school students. Chatham Park is proposing to begin building homes in the area north of US 64 sometime in the next two years. Construction of a new Northeast Elementary school is needed to meet this growth in a timely fashion.

## Recommended Solution

Build a new elementary school in the northeast area of the county to be sized to meet existing growth and the anticipated onset of Chatham Park. The school was requested to be constructed to open in August 2019, but County staff recommends building the school to open in August 2020. OR/Ed is in the process of updating projections. The current enrollment could be managed by adjusting the number of pre-K students on campus, and a 2019 opening is ambitious given the need to secure land. The delay reduces the impact on the debt model by 0.10 cents on the property tax rate. The 1.50 cents needed to fund the school is recommended to be funded as follows: 1-cent from the additional sales tax revenue approved by the legislature and 0.5 cents from the operating budget. This may require additional property tax revenues, if the increase cannot be absorbed by growth in existing revenues.

# Schools - Northeast Elementary School

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New

## Alternatives

1. Continue adding modular classrooms to North Chatham and Perry Harrison to provide needed classroom spaces. This does not address the related core (cafeteria, media center, counseling, traffic, etc...) capacity issues.
2. Build additions to North Chatham and Perry Harrison to address foreseeable classroom and core capacity needs on campuses with limited space for new construction.
3. Do nothing and negatively impact the educational opportunities of elementary school students in the northeast portion of Chatham County.

## Description of Land Needs

Approximately 15-20 acres will be needed.

## Professional Services Needed

Planning, design, engineering and architectural services will be needed.

## Operating Impact

Additional funds will be needed for utilities to operate the school.

# Schools - Northwood High School Auditorium HVAC Replacement

Approved-No Contracts

Replace heating ventilation and air-conditioning (HVAC) at Northwood High School Auditorium.

Project Budget	Budget	Prior to FY 2016	Current	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	Project Totals
			Year: FY 2016								
<b>Project Element</b>											
Construction	150,000	0	150,000	0	0	0	0	0	0	0	150,000
Contingency	15,000	0	15,000	0	0	0	0	0	0	0	15,000
<b>Total Project Element</b>	<b>165,000</b>	<b>0</b>	<b>165,000</b>	<b>0</b>	<b>165,000</b>						
<b>Funding Source</b>											
Capital Reserves	0	0	165,000	0	0	0	0	0	0	0	165,000
<b>Total Funding Source</b>	<b>0</b>	<b>0</b>	<b>165,000</b>	<b>0</b>	<b>165,000</b>						
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	165,000	0	0	0	0	0	0	0	165,000
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>165,000</b>	<b>0</b>	<b>165,000</b>						

## Define Problem

The HVAC system at Northwood Auditorium is over thirty years old and has exceeded its lifecycle. The system is deteriorating rapid, failure is imminent, and parts have become unavailable. The system must be replaced to continue intended use of the auditorium.

## Recommended Solution

Replace existing obsolete, chilled water system and unit heaters.

## Current Stage of Project

The NHS Auditorium HVAC design is being re-evaluated to meet budget restraints. Construction is estimated to begin February 2016.

## Professional Services Needed

Design and/or engineering services will be needed.

# Schools - Roof Replacements

Approved-No Contracts (Part)

Replace the roofs at JS Waters, SAGE Academy, Moncure, Administration Building, Horton Middle, Bennett, Pittsboro (remaining), Chatham Central High, North Chatham Elementary, Maintenance Department, Perry Harrison Elementary, Siler City Elementary, Jordan-Matthews High School, and Northwood High School.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	7,010,802	1,702,803	2,549,394	1,515,899	158,270	657,604	0	0	0	0	6,583,970
Design, Engineering & Construction Ad	83,410	179,107	0	0	0	0	0	0	0	0	179,107
Other Contracted Services	348	2,409	0	0	0	0	0	0	0	0	2,409
<b>Total Project Element</b>	<b>7,094,560</b>	<b>1,884,319</b>	<b>2,549,394</b>	<b>1,515,899</b>	<b>158,270</b>	<b>657,604</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,765,486</b>
<b>Funding Source</b>											
Capital Reserves	0	0	0	300,992	158,270	657,604	0	0	0	0	1,116,866
Debt--Installment Purchase	1,098,043	1,157,659	0	0	0	0	0	0	0	0	1,157,659
Transfer from General Fund	2,496,517	726,660	529,639	0	0	0	0	0	0	0	1,256,299
Transfer from Water Capital Reserve	3,500,000	0	2,019,755	1,214,907	0	0	0	0	0	0	3,234,662
<b>Total Funding Source</b>	<b>7,094,560</b>	<b>1,884,319</b>	<b>2,549,394</b>	<b>1,515,899</b>	<b>158,270</b>	<b>657,604</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,765,486</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	579,326	300,992	118,274	118,274	0	0	0	0	1,116,866
Transfer from General Fund	0	1,256,299	0	0	0	0	0	0	0	0	1,256,299
<b>Total Operating Effect</b>	<b>0</b>	<b>1,256,299</b>	<b>579,326</b>	<b>300,992</b>	<b>118,274</b>	<b>118,274</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,373,165</b>

## Define Problem

The school system replaced roofs in the worst condition with Qualified School Construction Bonds (QSCBs), including Bonlee (FY 2012), part of Pittsboro Elementary and Silk Hope (FY 2013). A roofing assessment conducted as part of the planning process for QSCBs found that many roofs in the system are in need of major replacement and repair in the near future.

## Recommended Solution

Repair of school roofs is prioritized ahead of other school system buildings. Based on limited funding, school and county administration have worked out a plan to phase the roofs as follows:

FY 2013: JS Waters funded with a combination of leftover Margaret Pollard funds and county fund balance.

FY 2014: SAGE Academy and Moncure School funded with a one-time windfall of motor vehicle taxes (resulting from the state collecting vehicle taxes four months earlier than counties)

FY 2015: Finished SAGE and Moncure.

FY 2016: Horton Middle, Administration, Bennett, and remainder of Pittsboro funded with capital reserve.

FY 2017: Chatham Central and North Chatham funded with capital reserves.

FY 2018: Maintenance Department, Perry Harrison, and Siler City Elementary funded with capital reserves.

FY 2019: Jordan-Matthews and Northwood high schools funded with capital reserves.

## **Alternatives**

If repairs and replacements are not made, the school system will incur increasing roof maintenance costs and facility damage. When it rains hard, the school system must repair the damage caused by leaks.

## **Current Stage of Project**

J. S. Waters was completed April 1, 2014. Moncure and SAGE are complete, is Horton and Administration are scheduled to begin in FY 2016. The Horton and Administration roofs' bid opening is scheduled for October 2015 with an estimated construction completion of June 2016. Design is to be completed for Bennett and Pittsboro Elementary in November 2015 with an estimated construction completion of September 2016.

## **Relation to Other Projects**

When a roofing assessment was obtained in 2011, it showed that fewer roofs could be repaired with QSCB funds than originally estimated. The school system has submitted a separate request for the remaining repairs and replacements that the roofing assessment showed was needed.

# Technology - Increase Capacity for Data Storage

Approved-No Contracts (Part)

Provide a secure storage system for the county's increasing data storage needs.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Equipment	1,039,744	315,838	0	0	0	0	723,906	0	0	0	1,039,744
<b>Total Project Element</b>	1,039,744	315,838	0	0	0	0	723,906	0	0	0	1,039,744
<b>Funding Source</b>											
Capital Reserves	767,862	43,956	0	0	0	0	723,906	0	0	0	767,862
General Fund Fund Balance	271,882	271,882	0	0	0	0	0	0	0	0	271,882
<b>Total Funding Source</b>	1,039,744	315,838	0	0	0	0	723,906	0	0	0	1,039,744
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	43,956	241,302	120,651	120,651	120,651	120,651	0	0	0	767,862
Decreased Operating Costs	0	-126,000	-126,000	-126,000	-126,000	-126,000	-126,000	-126,000	-126,000	-126,000	-1,134,000
General Fund Fund Balance	0	271,882	0	0	0	0	0	0	0	0	271,882
Increased Operating Costs	0	123,680	95,275	109,144	73,584	78,323	83,380	11,255	11,593	11,941	598,175
<b>Total Operating Effect</b>	0	313,518	210,577	103,795	68,235	72,974	78,031	-114,745	-114,407	-114,059	503,919

## Define Problem

Chatham County's data storage needs continue to grow as more automation is introduced and existing systems continue to be used. Also increasing is the use and reliance on audio and video files for the jail, emergency operations center and recording of commissioner meetings. There is increasing interest in audio/video solutions, such as video-conferencing, which will continue to fuel storage needs. Public records retention laws require long-term storage. Data storage has grown exponentially, from 200 gigabytes in 2005 to 53,000 gigabytes in 2013, and 107,000 gigabytes (107 TB) in 2015. The MIS department has revised policies to reduce storage needs. Storage usage is monitored closely to avoid reaching maximum capacity, and focused effort is being made to complete the domain migration project that will enable reclamation of space.

## Recommended Solution

The storage area network (SAN) in place is adequate to meet anticipated needs as long as additional space is added as needed and drives that go out of support are upgraded. Manufacturer end-of-sale for the existing core unit is expected in 2016. Five years after end of sale, the manufacturer will no longer support the equipment through its normal partner network. The base equipment has been well maintained. New state-of-the-art drives have been added through a two-phase approach which increased the space needs and set the stage for elimination of older, slower drives.

A second SAN provides backup and duplication of the county's critical operations to ensure recovery in the event of a disaster. This structure has been serving the County well and has had complimentary upgrades to match the primary SAN; however, the secondary SAN does not have capacity to fully match the performance of the primary SAN and is not capable of running all County systems.

SAN space can be expanded as the county's data storage needs grow. A threshold of 80% usage is the point at which more space should be added. Replacements of drives need to be planned to occur near the time support expires.

A third component of the county's data management system is server virtualization, a technology that enables one large server to function as multiple servers,

thereby eliminating the one-to-one dependence of software to hardware.

## Alternatives

The life expectancy of the SAN may be long enough to support a drive replacement strategy through 2020 instead of a full replacement as long as adequate vendor support for the overall device can be maintained. MIS will continue to work closely with the vendor to ensure adequate functionality of this critical set of equipment.

MIS is evaluating Internet-based 'cloud' solutions for long-term storage. Offsite storage of backups and long-term data that requires very little access would reduce the overall cost of County storage. Internet-access would be imperative for disaster recovery with a cloud storage solution, so Internet access and bandwidth are a primary concern when considering a cloud solution. Improvements in this area are underway, but more work remains to be done to achieve the stability and performance needed.

## Current Stage of Project

Phase one of the project was completed in July 2009 with the installation of the SAN. By leveraging the SAN and virtualization, MIS eliminated 19 physical servers. This trend continues as MIS is still expanding the SAN on an annual basis to meet data needs and new software applications being considered are evaluated for their ability to run in a 'virtual' environment. As of 2015, 99+ servers run virtually.

Phase two of the project was completed in October 2009 with the installation of a backup SAN to provide redundant storage and a disaster recovery (DR) site. Continued maintenance of the system has proceeded annually.

In 2014, the core controllers were upgraded to the most current available, with a projected life expectancy into 2020.

In 2015, new drives were installed and changes staged to eliminate drives known to soon go out of support.

In 2016, additional drive upgrades due to end of support are planned, and an full assessment of the systems will be performed. Alternatives, specifically 'cloud' based storage, will be assessed to determine most economical choice for the future. New technologies will be explored to determine the direction onsite storage should take at the next full replacement point.

## Relation to Other Projects

This project is related to the Space Needs Study. When MIS was relocated to the former temporary superior court, the servers were powered down prior to the move. Careful planning and the purchase of the Site Recovery Manager (SRM) software resulted in a successful and trouble-free move that was transparent to county staff.

This project is also related to the new Integrated Public Sector Software project because it will increase data storage needs.

## Operating Impact

With the SAN and virtualization, the cost of purchasing and maintaining physical servers has, for the most part, been eliminated, and energy costs have been reduced. Dell, the manufacturer of the SAN, estimates that for every server virtualized there is a savings of 7,000kwh of electricity annually or about \$700 in energy costs, and a related reduction of carbon emissions. When the hardware is replaced MIS will pursue the most economical support strategy, which may be one of pre-purchased maintenance and support. This approach bundles maintenance and support into the purchase price of the equipment so there will be no unexpected additional charges for maintenance and support for five years.

# Technology - Integrated Public Sector Software

Purchase software specifically designed to support the public sector that integrates human resources and finance.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Equipment	1,500,000	666,410	365,890	0	0	0	0	0	0	0	1,032,300
Software	0	0	0	0	0	0	0	0	0	0	0
<b>Total Project Element</b>	<b>1,500,000</b>	<b>666,410</b>	<b>365,890</b>	<b>0</b>	<b>1,032,300</b>						
<b>Funding Source</b>											
Transfer from Water Capital Reserve	1,500,000	666,410	365,890	0	0	0	0	0	0	0	1,032,300
<b>Total Funding Source</b>	<b>1,500,000</b>	<b>666,410</b>	<b>365,890</b>	<b>0</b>	<b>1,032,300</b>						
<b>Operating Effect</b>											
Decreased Operating Costs	0	0	0	-34,710	-37,331	-38,451	-39,604	-40,793	-42,016	-43,277	-276,182
Decreased Operating Costs (Utility Fun	0	0	0	0	-16,263	-16,751	-17,253	-17,771	-18,304	-18,853	-105,195
Increased Operating Costs	0	0	74,702	78,437	82,359	86,477	90,801	95,341	100,108	105,114	713,340
Increased Operating Costs (Utility Fund)	0	0	11,888	12,483	13,107	13,762	14,450	15,173	15,931	16,728	113,521
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>86,590</b>	<b>56,210</b>	<b>41,872</b>	<b>45,037</b>	<b>48,394</b>	<b>51,950</b>	<b>55,719</b>	<b>59,712</b>	<b>445,484</b>

## Define Problem

The lack of integrated software to manage finance and human resources causes difficulty in managing accounting operations and personnel. In addition to the operational inefficiencies, the fragmented approach to software is difficult and costly to maintain and support.

While the functions of finance, accounting and human resources overlap in many areas, the software that currently supports these departments is not integrated and, in some cases, is antiquated and error-prone. For example, the lack of Human Resources (HR) software means that employee status changes must be manually entered into the accounting (payroll) software. Employee status information and job applications are maintained on Excel spreadsheets. The software used to track training was developed in-house using an outdated version of Microsoft Access. The accounting software runs on a mainframe and is backed up on tape drives.

## Recommended Solution

Purchase and install integrated Enterprise Resource Planning (ERP) software including financial, payroll, human resource management and utility billing modules that will allow the county to manage its core functions with a single application. The software is modular and can be expanded to incorporate additional county processes in the future.

## Current Stage of Project

A cross-functional team with representatives from the County Manager's Office, Finance, Human Resources, and MIS has conducted a review of software offerings including visits and interviews with other counties to benchmark available software. The team selected Munis, a vendor whose software is used extensively by NC local governments. The implementation process has begun and Finance went live in March 2015. HR implementation began in April 2015 and is scheduled to go live January 2016. Utility roll out will begin once HR and Payroll implementation is complete.

## **Professional Services Needed**

The vendor will provide project management and guidance throughout the installation, including business process consulting, conversion of current data, training and support.

## **Operating Impact**

There will be annual maintenance and license support fees. The new software will computerize all human resource functions and integrate them with payroll. Outside vendors will also benefit from a more efficient and easy to use payment processing module.

# Technology - Justice Center AV Replacement

New

Replace all audio/visual equipment in the Historic Courthouse and the Justice Center.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Contingency	0	0	0	0	0	0	0	0	0	42,350	42,350
Equipment	0	0	0	0	0	0	0	0	0	423,500	423,500
<b>Total Project Element</b>	0	0	0	0	0	0	0	0	0	465,850	465,850
<b>Funding Source</b>											
Capital Reserves	0	0	0	0	0	0	0	0	0	465,850	465,850
<b>Total Funding Source</b>	0	0	0	0	0	0	0	0	0	465,850	465,850
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	0	66,550	66,550	66,550	66,550	66,550	66,550	66,550	465,850
<b>Total Operating Effect</b>	0	0	0	66,550	66,550	66,550	66,550	66,550	66,550	66,550	465,850

## Define Problem

The Historic Courthouse and Justice Center AV Equipment was newly installed in 2012. Many of the equipment manufacture warranties are or soon will be expired and a general support contract is in development to address repairs and maintenance. Repairs are occasionally needed, but over the next three to five years the severity of failures is expected to increase. By 2023, the aging equipment will need to be fully replaced if not sooner.

## Recommended Solution

Replace all audio/visual equipment in the Historic Courthouse and Justice Center, including wiring, that cannot be functionally verified at acceptable carrier levels. Racks are standard and are not anticipated to need replacing.

## Alternatives

1. Do nothing: Audio/Video equipment, like any hardware equipment has a limited functional life. AV equipment is commercial quality, but still susceptible to the effects of use, abuse, and age. As failures are reported, MIS evaluates and coordinates repairs. Each year, MIS reviews the infrastructure and evaluates the status in terms of existing strengths and weaknesses. Doing nothing would result in reports of malfunctions in operations in the courtrooms, which is unacceptable.
2. Replace equipment by Courtroom, by floor, or some other area breakdown: Since much of the equipment is integrated, the efforts to decouple and replace smaller areas would likely cause more disruption than a full replace. If this approach were used, it is likely that the costs of some areas could be included in the annual operating budget, thereby addressing replacements somewhat sooner. Potential major failures would be avoided with this approach and ultimately all equipment would be uplifted. However, the equipment would then be of differing ages and possibly of differing makes/models. This could cause some complexity and possibly hinder integration of building-wide systems.
3. Replace components as they fail: This is the method currently used as issues arise. This approach addresses failures as they occur. This is a workable method while the installation is still relatively recent. Matching parts are still mostly obtainable. Original manufacturers of the equipment are still in business. Failures would be expected to occur on a higher frequency and involve major components as time passes, especially after the five-year mark of 2017. These unexpected failures could impact usage and court functions.

### **Operating Impact**

After the new equipment is installed, annual support would continue until the next uplift. This continued support is expected to be equivalent to support in existence prior to the upgrade.

# Technology - Social Services Software

New

Purchase additional software for the Department of Social Services (DSS).

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Furnishings & Equipment	0	0	0	8,935	0	0	0	0	0	0	8,935
Other Contracted Services	0	0	0	78,317	108,153	0	0	0	0	0	186,470
Software Expense	0	0	0	30,300	51,750	0	0	0	0	0	82,050
<b>Total Project Element</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>117,552</b>	<b>159,903</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>277,455</b>
<b>Funding Source</b>											
Capital Reserves	0	0	0	0	159,903	0	0	0	0	0	159,903
Federal & State Reimbursement	0	0	0	117,552	0	0	0	0	0	0	117,552
<b>Total Funding Source</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>117,552</b>	<b>159,903</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>277,455</b>
<b>Operating Effect</b>											
Additional Revenues	0	0	0	0	-6,254	-6,441	-6,635	-6,834	-7,039	-7,250	-40,453
Contribution to Capital Reserve	0	0	0	79,951	79,952	0	0	0	0	0	159,903
Increased Operating Costs	0	0	0	10,338	27,550	28,377	29,229	30,106	31,009	31,938	79,216
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>90,289</b>	<b>101,248</b>	<b>21,936</b>	<b>22,594</b>	<b>23,272</b>	<b>23,970</b>	<b>24,688</b>	<b>307,997</b>

## Define Problem

DSS currently operates with several different software systems, some of which have been modified by people no longer employed with the county and are difficult to maintain and support. For example, the agency uses Laserfiche (LF) for document storage and retrieval. This is a customized solution that requires someone with the appropriate skill set to modify. Not all programs have been scanned into LF and there are changes to existing programs that need to be made. This has been difficult for MIS and there has been no significant progress toward reducing reliance on paper and effectively using electronic records in over two years. DSS has been unable to make any changes or additions to the current document storage system (Laserfiche). There are not resources within our MIS department to work effectively in this system, which has led to problems in adding new DSS programs into the system (e.g. child support and childcare subsidy) and to make modifications when needed. Hiring or contracting with someone who can customize our existing program is cost prohibitive and creates risk should that person leave or no longer be available.

## Recommended Solution

Evaluate software that will be more functional 'out-of-the-box' without significant customization that will serve as the controlling application for the agency and integrate operations including document storage, retrieval, and indexing. A more effective and efficient system could also slow the growth of staff in the face of increasing population growth and Medicaid (including applications from the Affordable Care Act) and Food and Nutrition Services caseloads.

## Alternatives

- 1) Do nothing. While the existing system is still technically functional, the difficulties in support and maintenance and the inability to make any additions to the system make this option unattractive. For some programs information must be stored in two different places because a document may be required for a program that uses a paper record and a program that is in LF.
- 2) Contract with an agency or individual to provide updates and further customization and considering other document storage solutions. Further customization will provide greater functionality than the existing system; however, this will also require ongoing and expensive costs to identify persons who have the required expertise. Sustaining a unique customized solution is a high-risk option. There would also need to be coordination with MIS department in order for a contractor

## Technology - Social Services Software

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New

to be able to access the network, etc.

3) Evaluate replacement software that will provide the standardization and functionality required by DSS, and be easier to support and maintain.

### **Current Stage of Project**

Staff is working with MIS and other jurisdictions to identify the best solution.

### **Professional Services Needed**

The software vendor would be expected to provide installation and training.

### **Operating Impact**

There will be annual maintenance and support fees. This cost is estimated at \$16,410 per year.

# Technology - Tax Software

New

Replace current software with a system that will provide improved functionality for staff and the public.

Project Budget	Budget	Current									Project Totals	
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023		
<b>Project Element</b>												
Furnishings & Equipment	0	0	0	0	0	436,000	0	0	0	0	0	436,000
<b>Total Project Element</b>	0	0	0	0	0	436,000	0	0	0	0	0	436,000
<b>Funding Source</b>												
Capital Reserves	0	0	0	0	0	436,000	0	0	0	0	0	436,000
<b>Total Funding Source</b>	0	0	0	0	0	436,000	0	0	0	0	0	436,000
<b>Operating Effect</b>												
Contribution to Capital Reserve	0	0	0	145,333	145,333	145,334	0	0	0	0	0	436,000
Increased Operating Costs	0	0	0	0	0	0	49,450	50,934	52,462	54,035	206,881	206,881
<b>Total Operating Effect</b>	0	0	0	145,333	145,333	145,334	49,450	50,934	52,462	54,035	642,881	642,881

## Define Problem

The current tax office software is based on out-of-date programming languages (COBOL, RPG) and runs on an old platform (AS 400) with limited storage space. Storage space is running out with only two slots open to add storage space. Also, because of the old technology, availability of support and maintenance programmers is very limited.

For normal appraisal use the software does not consider some of today's criteria (bedrooms, etc.) for appraising property.

The system is slow and it is difficult to develop the queries needed to provide information to the public and to County staff. Requests for information from the public have increased with the economic recovery, and it can take from several hours to several days to write a query that will retrieve the requested data. Queries also play a critical role in the development of the County budget by providing information on sales ratios, percent changes, value changes, high and low values, foreclosures by area, neighborhood, township, etc. They are also needed to assist in the collection of delinquent taxes by pulling areas of high delinquencies and mapping them to visit.

## Recommended Solution

Replace the existing tax software in approximately three to six years depending on the County revaluation schedule. The replacement of tax software must be done so as not to effect revaluation.

## Alternatives

One alternative is to take no action at this time. However, given the uncertainty of continued support, and the need to replace software without affecting a revaluation, this approach could impact county operations.

Another alternative would be to develop custom software in-house, but the needed resource and skill is not available.

## Current Stage of Project

The Tax Department is reviewing software packages and talking to other counties to understand functionality, cost, customer satisfaction, and usability of tax software currently on the market.

## Technology - Tax Software

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New

### **Professional Services Needed**

The vendor will provide project management and guidance throughout the installation, including business process consulting, conversion of current data, training and support.

### **Operating Impact**

There will be annual maintenance and license support fees.

# Technology - Telephone System Replacement - Countywide

Approved-No Contracts (Part)

Replace the county's existing phone systems with a centralized system that will seamlessly connect all county departments.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Contingency	36,430	0	8,926	8,926	5,950	0	0	0	0	0	23,802
Equipment	603,980	239,682	89,256	89,256	59,500	0	0	0	0	0	477,694
<b>Total Project Element</b>	<b>640,410</b>	<b>239,682</b>	<b>98,182</b>	<b>98,182</b>	<b>65,450</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>501,496</b>
<b>Funding Source</b>											
Capital Reserves	0	0	98,182	98,182	65,450	0	0	0	0	0	261,814
General Fund Fund Balance	640,410	239,682	0	0	0	0	0	0	0	0	239,682
<b>Total Funding Source</b>	<b>640,410</b>	<b>239,682</b>	<b>98,182</b>	<b>98,182</b>	<b>65,450</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>501,496</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	192,909	34,452	34,452	0	0	0	0	0	261,813
Decreased Operating Costs	0	0	-5,844	-5,844	-5,844	-5,844	-5,844	-5,844	-5,844	-5,844	-46,752
General Fund Fund Balance	0	239,682	0	0	0	0	0	0	0	0	239,682
Increased Operating Costs	0	0	10,370	16,990	23,945	29,861	30,524	31,207	31,910	32,635	207,442
<b>Total Operating Effect</b>	<b>0</b>	<b>239,682</b>	<b>197,435</b>	<b>45,598</b>	<b>52,553</b>	<b>24,017</b>	<b>24,680</b>	<b>25,363</b>	<b>26,066</b>	<b>26,791</b>	<b>662,185</b>

## Define Problem

The county replaced its phone system in 2008. Currently, existing phones consist of both digital and IP types with approximately 3% able to meet today's capabilities of a centralized system. The phone network consists of six separate phone systems, all NEC brand, but installed by two different vendors and made up of two different varieties of hardware. Of these, all but one has experienced major failures. Hardware failures carry the risk of prolonged outages because parts are no longer being manufactured. The various systems do not interface well which often causes confusion for end users.. With various hardware systems in multiple locations, IT staff support takes significant time and effort to address problems when they do occur.

## Recommended Solution

The objective for the telephone system is to have seamless and flexible voice communication across all departments. A software-based system provides the best option for meeting this goal. Benefits include:

- 1) Reduced risk of failures
- 2) Elimination of the need for hardware replacement
- 3) Centralized management, which is more efficient for staff
- 4) Reliable communication regardless of device or location; multiple devices can be used.
- 5) Integration with email.

In addition, the system is mature, proven and generally accepted as good direction in industry.

## Alternatives

'Cloud' or leased solutions continue to be assessed as new options are provided. So far, these solutions have not revealed benefits beyond those of the recommended solution in terms of functionality, but are considerably more expensive than hosting the software in house.

## **Current Stage of Project**

The new software based system has been installed and is operational for MIS, the new Detention Center, the Parks and Recreation Department, and the new Solid Waste & Recycling Facility Building. The next phase for implementation will include the Emergency Operations Center, Sheriff's Office, Animal Services, Government Annex, Board of Elections, and the Performance Building. The final stage of the project will be completed by the end of FY 2018 and will include the Dunlap Building, Department of Social Services, and Backup 911 Center.

## **Relation to Other Projects**

Fiber optic cable was installed between county buildings in Pittsboro in FY 2009 with funding from building projects. Fiber to the new Detention Center and new Solid Waste & Recycling Facility Office is complete and includes the ability to serve the Animal Shelter.

## **Operating Impact**

The centralized system will require annual software assurance and support fees. The software assurance ensures continual updates and new versions of the software in perpetuity. Without the software assurance, the ability to receive updates and releases would require either a repurchase of the software or a 'catch up' on the unpaid software assurance as it stood at that time.

# Voting Equipment Replacement

Approved-No Contracts

Replace voting equipment for Chatham County elections.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Contingency	61,494	0	0	0	0	61,494	0	0	0	0	61,494
Equipment	614,940	0	0	0	0	614,940	0	0	0	0	614,940
<b>Total Project Element</b>	<b>676,434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>676,434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>676,434</b>
<b>Funding Source</b>											
Capital Reserves	676,434	0	0	0	0	676,434	0	0	0	0	676,434
<b>Total Funding Source</b>	<b>676,434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>676,434</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>676,434</b>
<b>Operating Effect</b>											
Contribution to Capital Reserve	0	0	169,109	169,109	169,109	169,109	0	0	0	0	676,434
Decreased Operating Costs	0	0	0	0	0	-27,088	-27,088	-27,088	-27,088	-27,088	-135,440
Increased Operating Costs	0	0	0	0	0	28,445	29,298	30,177	31,083	32,015	151,018
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>169,109</b>	<b>169,109</b>	<b>169,109</b>	<b>170,466</b>	<b>2,210</b>	<b>3,089</b>	<b>3,995</b>	<b>4,927</b>	<b>692,012</b>

## Define Problem

The M-100 Optical Scan voting equipment owned by Chatham County has an average expected life span of 12-14 years or slightly longer if maintained properly. The county currently owns 30 optical scanners and 21 Automark ballot marking devices. This equipment was purchased and maintained with State grant funds, which are no longer available. By 2019, the county's voting equipment will be approximately 15 years old. Maintenance has been performed each year since purchase. Potential changes in Federal and State laws will require voting systems to perform in new ways as technology changes. A change in state law this year eliminated the use of direct record electronic (DRE) voting systems beginning 2018, which some of the larger counties use. This may prompt voting systems manufacturers to develop new equipment and the state to certify new equipment.

## Recommended Solution

Purchase new equipment that is certified by the State of North Carolina and the National Testing Group with the most current software and any licenses or maintenance agreements that are required. Figures in the CIP are based on the original cost of the existing equipment inflated by 3% per year, but it is not likely that the same equipment will be purchased. Therefore, the figure in the CIP should be considered a placeholder until more is known.

There are many different types of voting equipment but most are not certified for use in North Carolina. Only one optical scanner is certified for use in North Carolina. The optical scanner will not replace the Automark ballot-marking devices. Based on current law, some type of equipment will still be needed that meets access requirements for disabled voters. The current replacement for the Automark is the Expressvote ballot-marking system. The Expressvote is not currently certified for use in North Carolina but is in the certification process. The Expressvote uses touch screen technology to produce a paper ballot that can be inserted into the optical scanner.

## Alternatives

State statutes require the use of voting equipment for most elections. Hand counting of paper ballots is not permitted, except in the case of audits or recounts. The county could replace existing equipment with newer versions of the same equipment or different equipment, if it is state certified. Equipment maintenance becomes more expensive as the equipment ages, and the policies of the seller prohibit using anyone other than the seller for service. The current Automark was purchased in 2008 and may be able to be used for several more years. Another alternative is to replace the Automark units as they fail.

## **Operating Impact**

Additional funds will be needed for equipment maintenance, but costs for the new system should be roughly the same as the old system. Generally, the licensing and software upgrade for the first year is included in the purchase, and is renewed yearly. Beginning the second year after purchase, an annual maintenance and licensing plan would likely be necessary.

# **Solid Waste & Recycling Fund Projects**

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# Solid Waste & Recycling - Replace Waste & Recycling Facility Office

Substantially Complete

Construct an approximately 5,100-square-foot office building adjacent to the existing modular office and demolish the modular upon completion of the new structure.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	1,187,047	1,015,163	188,486	0	0	0	0	0	0	0	1,203,649
Contingency	51,504	0	31,979	0	0	0	0	0	0	0	31,979
Design, Engineering & Construction Ad	103,008	100,218	3,090	0	0	0	0	0	0	0	103,308
Feasibility Study	10,750	10,750	0	0	0	0	0	0	0	0	10,750
Furnishings & Equipment	79,760	13,072	119,312	0	0	0	0	0	0	0	132,384
Owner Contracts/Admin Costs	16,480	12,714	3,766	0	0	0	0	0	0	0	16,480
<b>Total Project Element</b>	<b>1,448,549</b>	<b>1,151,917</b>	<b>346,633</b>	<b>0</b>	<b>1,498,550</b>						
<b>Funding Source</b>											
Operating Revenue	10,750	10,750	0	0	0	0	0	0	0	0	10,750
Solid Waste Fund Balance	1,437,799	1,141,167	346,633	0	0	0	0	0	0	0	1,487,800
<b>Total Funding Source</b>	<b>1,448,549</b>	<b>1,151,917</b>	<b>346,633</b>	<b>0</b>	<b>1,498,550</b>						
<b>Operating Effect</b>											
Increased Operating Costs	0	0	5,600	7,308	7,527	7,753	7,986	8,225	8,472	8,726	61,598
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>5,600</b>	<b>7,308</b>	<b>7,527</b>	<b>7,753</b>	<b>7,986</b>	<b>8,225</b>	<b>8,472</b>	<b>8,726</b>	<b>61,598</b>

## Define Problem

The current 1,400-square-foot modular office unit was installed in 1997. The modular unit is in need of new carpet, wallpaper, roof repairs, and possibly two new HVAC units in the near future. The condition of this modular unit conveys an unprofessional appearance for the county's award-winning program and provides poor working conditions for professional staff. Additionally, the modular unit has limited storage space, no conference room to hold meetings or trainings, and no room for future growth. The Solid Waste & Recycling Division has 13 employees who are currently spread between the modular unit (five employees) and the 300-square-foot scale house (eight employees) at the end of County Landfill Road near the closed landfill.

At this location, the county currently provides land clearing debris disposal, inert debris disposal, electronics recycling, tire recycling, waste oil recycling, pesticide container recycling, household hazardous waste disposal, scrap metal recycling, and common household material recycling for small businesses. Customers have to weigh their loads at the old scale house, unload near the modular unit, go back to the scales to weigh empty and then come back to the modular unit to pay, if required. This is an inconvenient and confusing process for many customers.

## Recommended Solution

Build a new office facility adjacent to the existing modular unit and demolish the modular unit upon completion of the new office. The new office should have ample storage space, room to consolidate all staff and provide for future growth, and a conference room large enough for department meetings and potential education and training events. New above-ground scales would be installed at the new office to provide more efficient flow of traffic and ease of access to services. The existing scales are 22 years old and would be left in place as a backup, as it would be more expensive to move these scales than to purchase new ones. Staff recommends proceeding with the project now rather than delaying the project to 2017. The funds for this project are available in the Solid Waste and Recycling Enterprise Fund. The inflation costs associated with a delay would be much more than the interest earned and would save approximately \$220,000.

## Alternatives

- 1) The Environmental Quality Director explored other options, including a pre-fabricated building. Preliminary numbers indicated the possibility for savings, but there would be trade-offs in the quality of the building.
- 2) The existing modular unit could be upgraded and an additional unit could be brought in to house the eight employees currently in the scale house. The scales would also need to be replaced or relocated in order to locate the scales nearer to the disposal and recycling services provided.

## Current Stage of Project

The Board of Commissioners approved a budget ordinance authorizing the construction on August 18, 2014. Hobbs Architects was contracted to perform the design and construction administration. Muter Construction was selected to complete the project and is expected to break ground in October 2014 and should be completed July 2015. The building was completed September 2015 and the new scales were completed October 2015. Final site grading and landscaping remain to be completed.

## Description of Land Needs

Adjacent to existing building on county land.

## Professional Services Needed

Architectural, design, and construction management services are needed.

# Solid Waste & Recycling - Single Stream Recycling

Approved-No Contracts

Upgrade the Collection Center recycling program to single-stream. This means that all household recyclables would be collected in one container as opposed to the current source-separated program with nine containers.

Project Budget	Budget	Prior to FY 2016	Current	Year 1:	Year 2:	Year 3:	Year 4:	Year 5:	Year 6:	Year 7:	Project Totals
			Year: FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
<b>Project Element</b>											
Construction	390,629	0	390,629	0	0	0	0	0	0	0	390,629
Contingency	39,063	0	39,063	0	0	0	0	0	0	0	39,063
Engineering & Construction Administrati	20,000	0	20,000	0	0	0	0	0	0	0	20,000
Furnishings & Equipment	306,130	0	306,130	0	0	0	0	0	0	0	306,130
<b>Total Project Element</b>	<b>755,822</b>	<b>0</b>	<b>755,822</b>	<b>0</b>	<b>755,822</b>						
<b>Funding Source</b>											
Capital Reserves	755,822	0	724,822	0	0	0	0	0	0	0	724,822
Grants, Gifts, Etc.	0	0	31,000	0	0	0	0	0	0	0	31,000
<b>Total Funding Source</b>	<b>755,822</b>	<b>0</b>	<b>755,822</b>	<b>0</b>	<b>755,822</b>						
<b>Operating Effect</b>											
Decreased Operating Costs	0	-80,884	-89,684	-153,735	-245,472	-252,796	-260,319	-268,048	-275,988	-277,716	-1,904,642
Decreased Revenue	0	0	0	65,959	67,938	69,976	72,075	74,237	76,465	78,758	505,408
Increased Operating Costs	0	0	150,000	7,354	9,560	9,840	39,525	40,684	50,721	52,242	359,926
Increased Revenue	0	0	0	-146,020	0	0	0	0	0	0	-146,020
<b>Total Operating Effect</b>	<b>0</b>	<b>-80,884</b>	<b>60,316</b>	<b>-226,442</b>	<b>-167,974</b>	<b>-172,980</b>	<b>-148,719</b>	<b>-153,127</b>	<b>-148,802</b>	<b>-146,716</b>	<b>-1,185,328</b>

## Define Problem

Chatham County's current recycling program is inefficient and inconvenient. Recyclables are separated at the source, requiring residents to sort into 9 categories: aluminum cans; steel cans; cardboard; mixed paper; newspaper; plastic; brown glass; clear glass; green glass. These 9 categories require multiple bins at the Collection Centers.

Each Collection Center has at least 8 recycling bins and busier sites have more than 10, with up to 18 at the busiest site, Cole Park. Given the limited space at the Collection Centers, the recycling bins are spread around the site, requiring visitors to make multiple stops in their vehicle or walk back and forth across the site to deposit recyclables. Residents walking around bins and through traffic lanes create safety hazards for other vehicles and county trucks.

The layout of recycling bins also increases the amount of time that each visitor spends in the Collection Center. Coupled with rising visitation (up 13% overall in the past five years), this leads to increased congestion in the sites and more activity for site attendants to oversee.

Source-separated recycling requires frequent hauling, including many hauls of containers that are not full. For example, aluminum and steel cans are collected in compartmentalized 30-yd containers. When one side fills up, the entire box must be hauled. The same is true for glass containers, which are compartmentalized into three sections for brown, clear, and green glass.

County drivers make 2,840 hauls per year from the Collection Centers and travel a total of 64,000 miles hauling those recyclables. Paper products are picked up and hauled directly to market in Burlington or Raleigh. Cans are hauled directly to market in Siler City, and plastic and glass are hauled to the Main Facility to be

consolidated before going to market in Raleigh.

In addition to inefficiencies at the Collection Centers, residents report frustration with the inconvenience of separating recyclables at home. In a survey conducted in the summer of 2013, residents were asked what obstacles prevent them from recycling more, or recycling at all. Results showed that 23% of residents' recycling habits are inhibited by the current source separated system.

The opportunity to increase recycling is evident in the results of two waste characterization studies completed in 2011 and 2014. The 2011 study revealed that 34% of waste collected in compactors was recyclable material. Despite education and outreach methods over the past 3 years, the diversion of recyclable material from the waste stream has remained stagnant. The 2014 study revealed that 36% of the waste collected in compactors was recyclable and that 12% of waste collected in bulky containers was recyclable. This amounts to 2,890 tons of recyclables being sent to the landfill each year, costing the county \$138,718 annually in tipping fees and perpetuating our reliance on out-of-county landfills.

## **Recommended Solution**

Upgrade recycling program to single-stream collection.

Single stream recycling would improve customer service by making recycling more convenient and streamlining visits to the Collection Centers, thereby alleviating crowding and traffic congestion.

Recycling participation is anticipated to increase approximately 25% by weight, which would divert more materials from the waste stream, save the county money on tipping fees and decrease our dependence on out-of-county landfills. With only one recycling bin and an easier choice at home, we anticipate receiving more recyclables from current recyclers and new recyclables from households that did not previously recycle.

Single-stream recycling would also limit the number of containers required at each Collection Center and reduce the number of recycling hauls for county drivers. Improvements would be made at the Main Facility to consolidate recyclables before hauling them to market.

By increasing recycling participation by 25% and diverting these materials from the landfill, the county would save \$19,900 annually on tipping fees and fuel for transportation.

## **Alternatives**

1) Upgrade recycling program to single stream collection. The county would collect all 9 categories of household recyclables in one container at each Collection Center.

2) Upgrade recycling program to single stream minus glass collection. The county may be able to receive a higher rebate for single stream recyclables without glass. To maintain current glass revenue, the county would continue to separate green, brown, and clear glass, requiring residents to continue sorting.

3) Build new northeast Collection Center to alleviate congestion at Cole Park, which is the most crowded Collection Center. Since 2010, we have seen the following increases in visitation:

Cole Park: 12%

Pittsboro: 33%

Siler City: 26%

All 12 Collection Centers: 13%

Cole Park has experienced nearly the same rise in visitation (12%) as all 12 Collection Centers combined (13%) over the past 5 years. This alternative would not alleviate the increase in visitation at the next two busiest Collection Centers; Pittsboro and Siler City.

4) Do nothing. The problems associated with the current recycling program would continue. Visitation at Collection Centers will continue to rise as population in the county increases, resulting in more crowding. Recycling participation is anticipated to remain stagnant, despite continued education efforts. Recyclable materials will continue to be thrown away and the county will pay for disposal of these items at the landfill.

# Solid Waste & Recycling - Single Stream Recycling

Approved-No Contracts

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## **Current Stage of Project**

Chatham County was awarded a grant from NCDEQ in the amount of \$31,000 to purchase compacting roll-off systems to collect single stream recycling. The County was also awarded a \$30,000 grant from NCDEQ for recycling bins as giveaways to help motivate residents who do not recycle. Responses to requests for qualifications (RFQs) for the design of the recycling station were received in October, 2015. Staff is reviewing the proposals and plans to award a contract October 2015.

## **Professional Services Needed**

Engineering design work and construction management are needed.

## **Operating Impact**

Project will result in one-time operational costs and capital outlay for start-up. Additionally, annual recycling revenue will decrease. However, these costs will be partially offset by savings in transportation and hauling due to improved efficiency.

# **Water Fund Projects**

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# Water - Haywood Water Main Replacement

Approved-No Contracts

Replace the existing four-inch water main under the railroad tracks on Haywood Road with a six-inch water main.

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Construction	112,100	0	112,100	0	0	0	0	0	0	0	112,100
Contingency	11,210	0	2,406	0	0	0	0	0	0	0	2,406
Design, Engineering & Construction Ad	15,000	14,100	9,704	0	0	0	0	0	0	0	23,804
<b>Total Project Element</b>	<b>138,310</b>	<b>14,100</b>	<b>124,210</b>	<b>0</b>	<b>138,310</b>						
<b>Funding Source</b>											
Water Capital Reserve	138,310	14,100	124,210	0	0	0	0	0	0	0	138,310
<b>Total Funding Source</b>	<b>138,310</b>	<b>14,100</b>	<b>124,210</b>	<b>0</b>	<b>138,310</b>						

## Define Problem

As part of the Southeast Water District project completed in 2010, a six-inch water main was installed along Haywood Road, Moncure Loop and River Point Road. These lines do not provide adequate fire protection because of a four-inch section that crosses the CSX railroad tracks on Haywood Road. North Carolina Department of Environmental Quality (NCDEQ) requires all fire hydrants be served by a minimum six-inch water line. This four-inch section prevents the fire department from utilizing fire hydrants in the area. Instead, fire departments must fill pumper trucks with water from the nearest water point. If the fire hydrants were usable the fire department rating might improve and the insurance premiums might decrease.

## Recommended Solution

Replace the existing four-inch water main under the railroad tracks with a six-inch water main and connect the six-inch water main along old US 1 with the six-inch water main on Haywood Road.

## Alternatives

The only alternative is to do nothing, which would prevent the fire department from utilizing the hydrants and continue the inability to provide minimal fire flow requirements set forth by NCDEQ.

## Current Stage of Project

The design work has been completed. The CSX encroachment is pending. The project has been given approval by the state to begin construction. The two needed easement acquisitions are close to being secured. Pending CSX approval, the project will go out for bid in November 2015, with construction beginning during the first part of 2016.

## Relation to Other Projects

The project is related to the Southeast Water District completed in 2010. Because of funding limitations, the budget did not cover replacing this section of the water line.

## Description of Land Needs

None

## Professional Services Needed

Engineering, surveying, and construction phase services are under contract. The required railroad encroachment is under review and the North Carolina Department of Transportation (NCDOT) and Moncure Fire Department approvals have been obtained.

# Water - Haywood Water Main Replacement

Approved-No Contracts

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## Operating Impact

None.

# Water - Nature Trail Water Main Replacement

Approved-No Contracts

Replace all the existing water mains in the Nature Trail Mobile Home Park.

Project Budget	Budget	Prior to FY 2016	Current							Project Totals	
			Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022		Year 7: FY 2023
<b>Project Element</b>											
Construction	543,800	0	326,280	217,520	0	0	0	0	0	0	543,800
Contingency	54,380	0	0	54,380	0	0	0	0	0	0	54,380
Design, Engineering & Construction Ad	53,000	0	50,350	2,650	0	0	0	0	0	0	53,000
<b>Total Project Element</b>	<b>651,180</b>	<b>0</b>	<b>376,630</b>	<b>274,550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>651,180</b>
<b>Funding Source</b>											
Water Capital Reserve	651,180	0	376,630	274,550	0	0	0	0	0	0	651,180
<b>Total Funding Source</b>	<b>651,180</b>	<b>0</b>	<b>376,630</b>	<b>274,550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>651,180</b>
<b>Operating Effect</b>											
Decreased Operating Costs	0	0	0	-16,230	-24,480	-24,480	-24,480	-24,480	-24,480	-24,480	-163,110
<b>Total Operating Effect</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-16,230</b>	<b>-24,480</b>	<b>-24,480</b>	<b>-24,480</b>	<b>-24,480</b>	<b>-24,480</b>	<b>-24,480</b>	<b>-163,110</b>

## Define Problem

The County took over responsibility for operating and maintaining the Nature Trail Mobile Home Park water distribution system in 1983. The existing water mains are very old and were improperly installed. Some of the water mains were installed under and around the residences. When employees have to repair water mains located under these homes their structural stability could be compromised. The county spends approximately 288 employee and equipment hours per year repairing these water lines, at an estimated annual cost of \$24,480.

## Recommended Solution

Replace all of the existing water mains in the Nature Trail Mobile Home Park. The project will allow the county to reduce the amount of time county employees spend on maintenance and eliminate the problems with lines being installed too close to residences.

## Alternatives

The only alternative to doing the necessary repair is to do nothing and continue to have problems with the old, improperly installed lines.

## Current Stage of Project

The Water Department applied for a Community Development Block Grant (CDB) but was denied funding for this project. Before the application, the Board of Commissioner, through the CIP process, had already approved funding the project wholly from water capital reserve. The County is in the process of securing the services of an engineering/consulting firm to design and develop construction plans for bidding purposes. The project is recommended to begin in the spring 2016 because any further delay will increase the County's maintenance costs.

# Water - Planning Western Intake and Plant

Approved-No Contracts

Construct a water intake and treatment plant on the west side of Jordan Lake

Project Budget	Budget	Current									Project Totals
		Prior to FY 2016	Year: FY 2016	Year 1: FY 2017	Year 2: FY 2018	Year 3: FY 2019	Year 4: FY 2020	Year 5: FY 2021	Year 6: FY 2022	Year 7: FY 2023	
<b>Project Element</b>											
Design, Engineering & Construction Ad	2,200,000	57,629	3,639	500,000	500,000	500,000	0	0	0	0	1,561,268
<b>Total Project Element</b>	2,200,000	57,629	3,639	500,000	500,000	500,000	0	0	0	0	1,561,268
<b>Funding Source</b>											
Water Capital Reserve	2,200,000	57,629	3,639	500,000	500,000	500,000	0	0	0	0	1,561,268
<b>Total Funding Source</b>	2,200,000	57,629	3,639	500,000	500,000	500,000	0	0	0	0	1,561,268

## Define Problem

Chatham County is approaching the capacity of the existing Jordan Lake Water Treatment Plant and additional supply will be needed in the future. The existing maximum demand for water is approximately 2.8 million gallons per day (mgd). Expanding the capacity at the existing plant requires constructing a pipeline across Jordan Lake which is extremely expensive due to the cost of boring the lake.

## Recommended Solution

Construct a new intake and water treatment plant on the west side of Jordan Lake in cooperation with the partnering jurisdictions of Orange Water and Sewer Authority (OWASA), the City of Durham and the Town of Pittsboro. Only funds for engineering services required to plan the project are currently budgeted.

## Current Stage of Project

A scope of work for the initial feasibility study for the new intake and water treatment plant has been developed and the engineering firm Hazen and Sawyer has been selected to complete the study. The study is complete, and the partners are investigating finance and timing issues. Durham was the lead agency and paid 100% of the cost for the initial feasibility study. Chatham is incurring costs for its allocation request, the regional water supply plan, and an interconnection study.

## Relation to Other Projects

The Durham interconnect project will provide additional water supply while the new intake and water plant are planned and constructed.

## Description of Land Needs

Land is needed on the western shore of Jordan Lake. The number of acres is not yet determined.

## Professional Services Needed

Environmental and engineering services will be needed.

## Operating Impact

There will be significant operational impact, but the scope of that impact will be determined as the project becomes more refined.

# **Future Projects**

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## Future Projects

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Currently, the county lacks sufficient data, revenue, or debt capacity to schedule these projects. If these issues are resolved, these projects may appear in a future CIP.

### County Buildings - Assessment of Existing Agricultural Building

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Future

Assess the condition of the current agricultural building to determine whether it should be renovated for other use when the new agricultural center is completed.

#### Define Problem

When the new Chatham County Agricultural Center is completed the existing building will become vacant. The building was constructed in 1956 and has never been renovated. Concerns have been raised regarding asbestos and the structural integrity of the building, and additional problems include the plumbing, electrical wiring and heating and cooling system. An assessment will be needed to determine whether the building should be renovated for other use or demolished.

#### Recommended Solution

Perform an assessment of the existing Agricultural Building to determine whether the building should be renovated for use or demolished.

#### Relation to Other Projects

This project is related to the new Chatham County Agricultural Center project.

#### Professional Services Needed

Architectural and engineering services will be needed.

### County Buildings - Emergency Operations Center Expansion

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Future

Construct a second floor on top of the existing Emergency Operations Center (EOC) building in order for the Communication Division to expand its operations into the existing first floor EOC meeting room.

#### Define Problem

The existing Emergency Operations Center (EOC) houses the EOC meeting room where decision makers gather during disasters to make informed decisions on response and recovery efforts. It also houses the Chatham County Public Safety Answering Point (PSAP) better known as the 911 Communications Center. The EOC was completed and occupied in 1994. The communications room was built to hold four telecommunicator consoles and associated telephone and radio equipment. In the past few years, the number of consoles has increased to six, with one of those being placed in the corner of the EOC meeting room because the communications room is full. With the expected population growth in Chatham County over the next few years, the Communications Division will need to hire more full-time telecommunicators, which will require more consoles and associated equipment. Since the communications room is currently filled to capacity there is no room for this needed expansion.

#### Recommended Solution

Construct a second floor addition on the existing EOC building and move communications into the existing EOC meeting room. The EOC was designed to be expanded by adding a second story. Staff recommends that be evaluated to determine if current building codes would allow the second floor. Construction of a complete second floor would provide a new, larger EOC meeting room, badly needed office space, and bunk rooms. An additional second floor would also allow the communications function to expand into the existing EOC meeting room, which is large enough for years of expansion.

#### Alternatives

- 1) Do nothing. Continue to place the consoles in the EOC portion of the building. This would reduce the space in the EOC, which is already too small and is filled to capacity during activations.
- 2) Construct a new EOC meeting room attached to the north end of the existing building. This option would not offer any other benefit, such as more office space, storage room or bunk rooms needed when the EOC staff have to work for days without going home.

**Professional Services Needed**

A feasibility study would be required for cost estimates and to determine if current building codes would allow the second story. If allowed, additional architectural design, and construction administration services would be needed.

**Operating Impact**

Additional funds will be needed for utilities and building maintenance.

**County Buildings - Jail Renovation for Sheriff's Office**

**Future**

Renovate the current jail when the new detention center opens to provide additional space for the Sheriff's Office

**Define Problem**

When the new detention center opens, the 8,941 square feet of space that currently houses inmates and staff will be available for other use. The space needs study indicated the need for 1,943 square feet of additional space in the Sheriff's Office immediately and an additional 2,697 square feet within the next 5 to 10 years.

**Recommended Solution**

Renovate the unused jail space. Staff recommends retaining an architect for feasibility, cost estimates and schematic design for an approximate cost of \$18,000 to evaluate the best use of the space and the cost of renovation. The additional space could meet the Sheriff's Office medium-term needs for additional storage and office space.

**Alternatives**

- 1) The current jail could be renovated and provide space for the Sheriff's Office, including storage of evidence and additional staff space.
- 2) Keep the current jail in operation for overflow and weekends.
- 3) Do nothing. If the space is left unused, the area will still require heating and cooling to prevent the formation of mold and mildew.
- 4) Build a new Sheriff's Office at the new Detention Center location that would provide more staff space.

**Current Stage of Project**

An architect has provided an evaluation for renovation of the detention center that would be quite costly. Staff is developing alternatives that will provide needed space for the storage of evidence and possible rental space for staff.

**Professional Services Needed**

Architectural and engineering services were needed for the feasibility study.

**County Buildings - Northeast Library**

**Future**

Build a library branch in the northeastern area of the county.

**Define Problem**

Population growth in the northeastern area of Chatham County has far out-paced that of other areas. Although growth has slowed considerably with the recession there have been indications of growth picking up again. Library services to this area have not followed this growth. The 2001 Strategic Plan for Library Facilities in Chatham County recommended building a 25,000-square-foot library in the northeast; however, the economic advantages of building the new library on the Central Carolina Community College (CCCC) Pittsboro campus made it a more attractive option. The assumption was that the people in the northeast would travel to Pittsboro and use the new facility.

The former county bookmobile served for many years as a stop-gap, de facto branch; however, technology demands and low usage made this an inadequate service. The bookmobile averaged only 537 users county-wide, did not provide public Internet access or children's programming, and had a very limited collection. The citizens who used this service were vocal in their opposition to the discontinuation of the bookmobile. Many of these citizens have voiced their inability or unwillingness to use the existing branches, either due to distance of travel or physical disability. During the past year the library has initiated outreach services that includes delivery to homebound residents.

In November, 2011 the library launched its e-Resources collection to address some of the concerns about the discontinuation of the Bookmobile. Using technology to provide library services is more cost-effective than building a new branch and also meets the needs of those with mobility and transportation restrictions. The introduction of e-readership has warranted the creation of in-house classes for new owners to familiarize themselves with the devices. The library has joined a consortium to maximize its purchasing power to provide more new titles and is introducing a program to lend e-readers to the public to minimize access concerns.

The start-up cost of establishing a full-service library branch would be approximately \$1,000,000 (including the collection, furniture, computers, and equipment) if the space was leased and far more if the space was newly constructed. In addition, the library would have recurring yearly costs of approximately \$450,000. The Briar Chapel subdivision planned to provide land and infrastructure for a 10,000-square-foot facility under its conditional-use agreement. Briar Chapel officials have estimated that the land and infrastructure would be valued at \$80,000. Earlier this year, the Board of Commissioners agreed to accept the \$80,000 as a payment in lieu of providing space within the development. That funding has been set aside to address library services in the northeast. Some residents are under the impression that Briar Chapel is required to build the library, but if the developers did that, they would lease the building back to the county and this lease would count as debt.

### **Recommended Solution**

The county currently lacks the debt capacity to construct a library. Leasing space is a more viable option in the short-term, but operating and start-up costs are substantial.

The library obtained state grant funding to hire Phil Barton, a consultant, to develop an updated strategic plan that will include all the changes that have occurred over the past decade and the changes on the horizon, such as Chatham Park and the megasite. The plan, which included surveys, public input sessions and meetings with key stakeholders, was completed this past summer. The updated strategic plan confirmed the original 2001 recommendation to add space in a northeast location. However, other issues with the potential for greater urgency were also identified, such as the growing need for improvement to library services in the western portion of the county. Meanwhile, the e-reader program should be continued in order to provide an option to serve the former bookmobile patrons.

### **Alternatives**

1. Build a branch at Briar Chapel: Briar Chapel officials had discussed the possibility of providing the county with one of two possible tracts on US 15-501 to satisfy the requirements of their conditional use permit from the county. The county could build a new library on this land, however the presence of a library in a commercial development raised potential safety and security issues, especially in the parking areas and the location on US 15-501 is not much closer than the Chatham Community Library for some residents in the northeast sector of the county. For these reasons, the county opted to accept the payment in lieu.
2. Lease commercial space in the northeast sector of the county for a library: The County could apply the funding from Briar Chapel towards startup costs and rent space to establish a library in the northeast, although, as discussed above, there are potential safety and security issues involved with housing a library in a commercial development. The cost to upfit the space and rent it would be approximately \$180,000/year.
3. Construct another joint-use facility: The joint-use Chatham Community Library has worked well due to the careful collaborative planning of the county and the college. The building and operations were specifically designed, not an "add on" to an existing facility. Both partners agreed on a single staff structure (all staff are County employees) and computerized operating system. The most obvious partner for a new joint-use library in the northeastern area of the county is Chatham County Schools.
4. The use of e-readers has continued. Chatham County usage has followed the national trend with a leveling off from the initial surge in e-readership. While not all citizens have access to e-Reader devices, the library has responded with circulated devices pre-loaded with selected titles.
5. Vending machines that dispense library books are being offered as a new and creative solution to the problem of making library resources more

widely available. These machines can store hundreds of books and also serve as a drop-off for returns. This alternative could provide citizens in the northeast with a way to check out and return books without having to drive to the Pittsboro branch. Some federal grants have been available to help fund purchase and installation. The staffing costs would be more affordable. The strategic plan indicated that this would merely be a limited, temporary solution because downloading content will be a more prevalent format in the future.

#### **Description of Land Needs**

Approximately three acres would be needed for a new library.

#### **Professional Services Needed**

Professional design, architecture and construction would be needed.

#### **Operating Impact**

Additional funding would be needed for operational expenses.

## **Emergency Communications - Radio System Upgrade**

Future

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Replace current emergency radio system infrastructure and radios with a modern state-of-the-art system.

#### **Define Problem**

The existing VHF frequency radio system used by county public safety and other agencies is approximately 30 years old. The system has been maintained by replacing and upgrading equipment as needed, but rapidly increasing communication demands are rendering the system obsolete. The county currently has five different tower sites that broadcast communications to fire, emergency medical services, law enforcement, school system, animal control, and the public works radio systems. Each site has a generator backup, and is monitored 24/7 for issues that may arise, such as insufficient power during transmission or electrical service failure. The current system covers about 90% of the county. The mandated adoption of narrow banding created some unanticipated degradation of communications. Responders in northeast (particularly Carolina Meadows) and southwest Chatham cannot communicate back to the 911 center at all times, on their portable radios, but instead must use a vehicle radio. Also, because the frequencies are closer, Chatham County can hear other counties when they are paging, and vice versa. A short-term solution to the problem can be addressed in the operating budget with the addition of remote radio sites in Goldston and Carolina Meadows. However, a permanent replacement for the existing system will be needed in the future and the cost of the project will be significant because it will include construction of at least eight towers, additional equipment for the new AT&T towers, upgrading the County's existing towers, and upgrading the existing radios used by several departments.. A recent analysis conducted jointly by the Emergency Operations/Communications Division and Motorola determined that a total of 15 towers are necessary to provide 95% coverage inside buildings in Chatham County with towers heights of between 300 and 400 feet. The county's current regulations allow towers up to only 299 feet. The cost to construct a new tower is approximately \$1,300,000, including land purchase, tower construction, equipment to run the tower and a building to house the equipment and the generator.

#### **Recommended Solution**

An ad hoc advisory committee with representation from each affected organization identified alternatives and the advantages and disadvantages of each. Because the project is extremely complex, involving obtaining land, constructing towers, and selecting the best technology, the county would benefit from hiring a consultant who can better define the overall project plan and the associated costs. When a project plan is in place, along with a recommendation for a system and the associated costs, the county will better understand how to plan for the project and ensure adequate funding is available.

#### **Alternatives**

Staff has identified all possible alternatives but will need input from other agencies to fully define the advantages and disadvantages of each one:

- 1) 800 MHZ VIPER: The state is currently promoting this system, although other jurisdictions often experience busy signals when trying to use the frequency. The county would have to keep its existing VHF system for paging responders.
- 2) 700 MHZ: The federal government is considering a mandate to require that public safety agencies use 700 MHZ. If this happened, grant money may become available to cover the costs, which are unknown at this time.
- 3) Simulcast: Simulcast would use current tower sites and agencies would not have to choose the channel they wish to use for transmission as they

must do currently.

4) Chatham County 800 MHZ: Chatham County could choose to set up its own 800 MHZ radio system, which would be compatible with other counties on VIPER and other 800 systems. This option would be the most costly.

**Current Stage of Project**

An RFP has been issued for consultant to validate or revise Motorola’s findings for coverage, develop specifications for a bid, assist in finding revenues to fund the project, assist in the bidding process, and oversee the project until completed.

**Description of Land Needs**

Between 2 and 4 acres will be needed for each tower site.

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## **Schools - HVAC/Lighting Replacement**

**Future**

Upgrade outdated and inefficient HVAC and lighting.

**Define Problem**

Only two of the 17 Chatham County Schools were constructed during the last ten years (Margaret Pollard Middle and Virginia Cross Elementary) using energy efficient construction and mechanical systems. The 2014 Chatham County Schools Facility Conditions Assessment indicates that HVAC systems in the majority of the remaining 15 schools have outlived their projected life expectancy, are inefficient, and need replacement. In addition, most of the lighting in these schools is provided by outdated/inefficient T-12 lighting fixtures, which could be replaced with more energy efficient T-8 lighting. Taking care of these two issues at our schools will potentially result in substantial energy savings for the District, and would create an opportunity to take advantage of more environmentally responsible (e.g., geothermal HVAC) technologies and systems. This project would provide a to-be-determined amount of money to be used each year to upgrade HVAC/lighting systems in prioritized order over several years.

**Recommended Solution**

Create a long-term (seven years or longer) project that will provide a to-be-determined amount of money to be used annually to upgrade HVAC and lighting systems to provide more energy efficient systems. The County Manager’s Office recommends establishing a reserve.

**Alternatives**

- 1) Do nothing and continue patching existing HVAC systems to keep them running until they completely fail.
- 2) Do nothing and continue paying higher energy costs for lighting.

**Professional Services Needed**

Design and engineering services will be needed.

**Operating Impact**

Energy costs will be decreased with more modern and efficient systems.

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## **Schools - New Central Services Building**

**Future**

Construct a new building for Central Services.

**Define Problem**

The existing Central Services Building has exceeded its capacity resulting in the creation of inefficient satellite offices around the county. In addition, a 2014 facility conditions assessment indicates the building has surpassed its intended lifespan and is in need of costly repairs. The necessary repairs do not address the space issue.

**Recommended Solution**

Construct a new central services building to accommodate all departments in one location.

**Alternatives**

Repair existing building and continue to operate with inefficient satellite offices.

**Professional Services Needed**

Architectural design, construction, and engineering services will be needed.

**Operating Impact**

Additional funds will be needed for equipment, supplies, and maintenance.

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**Schools - New Schools****Future**

Construct an elementary or middle school as growth requires.

**Define Problem**

Based on OR/Ed projections, growth associated with Chatham Park, and the potential of the Siler City megasite bringing new residents, a new elementary or middle school could be needed within the next 10 years to accommodate student population growth.

**Recommended Solution**

The population figures will be monitored on a yearly basis, and financial and architectural planning for up to two new schools will begin when it is apparent that the schools are needed.

**Alternatives**

Add mobile units to the affected schools and/or redistrict as needed.

**Professional Services Needed**

Architectural and design services will be needed.

**Operating Impact**

Additional funds will be needed for equipment, supplies, maintenance, and staff.

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**Schools - Replace Gymnasiums at Bennett, Silk Hope and Bonlee****Future**

Replace gymnasiums at Bennett, Silk Hope, and Bonlee schools.

**Define Problem**

The gymnasiums at Bennett, Silk Hope, and Bonlee schools are in poor condition. Chatham County Schools has determined that it is more economical to replace them rather than renovate them.

**Recommended Solution**

Replace the gymnasiums at Bennett, Silk Hope, and Bonlee schools with gyms that meet the current size and features standards recommended by the Department of Public Instruction. The same design will be used on all gyms, with adjustments for site conditions, to reduce design costs.

**Alternatives**

Chatham County Schools explored adding on to each gym to provide space for spectators and restrooms at a rough estimate of \$400,000 per gym. This option was not pursued because of the age and condition of the gyms.

**Professional Services Needed**

Detailed architectural drawings and construction management will be needed.

**Operating Impact**

Utility and maintenance costs are expected to decline because of updated systems and materials.

## Schools - Wastewater Replacement at Silk Hope Elementary School

Future

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Replace wastewater system at Silk Hope Elementary School.

### Define Problem

The two main parts of the current Silk Hope School wastewater system are located approximately .5 miles apart and one part is on privately owned land. This system is functional but outdated. Replacing the existing system with an updated system would create an opportunity to take advantage of more environmentally friendly technologies and systems. In addition, locating this system entirely on CCS property would proactively eliminate future potential issues with the landowner and/or the NC Department of Environmental Quality (DEQ).

### Recommended Solution

Change to an updated and more efficient wastewater system which will be located entirely on CCS property.

### Alternatives

Do nothing and continue using the current outdated and less efficient system which is located partly on CCS property and partly on privately owned property.

### Professional Services Needed

Engineering services will be needed.

## Technology - Fiber Extension to Siler City

Future

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Extend County fiber to Siler City.

### Define Problem

Currently Chatham County uses leased lines to provide network access to offices in Siler City, including the Backup 911 Center, Health Department, Social Services, Wren Library, and Sheriff. These departments frequently experience slow network response and would benefit from an extension of county-owned fiber. Extending fiber to Siler City would be an efficient and cost-effective solution to slow network response and enable a better placement of the backup SAN. A county fiber connection at the backup 911 center also provides a redundant link that is sufficient to continue operations for the county should the primary location be disrupted.

### Recommended Solution

The 2015 North Carolina Rural Assembly conference identified potential sources of funding for broadband services and collaborative strategies. A collaborative effort that takes advantage of funding opportunities would be a more effective solution than an independent County effort.

### Alternatives

1. Do nothing: Planned changes in switches, potential cabling and leased line upgrades are in process. Continue to use leased lines as needed despite slow network response times until changes are in place and the problem can be reassessed. Leased lines provide a minimum estimated (not guaranteed) speed. These can be increased, but costs increase as well. Leased lines can be disconnected when a location is no longer needed which may serve the county better until various construction and renovation projects are completed.
2. Extend Fiber to Siler City: Fiber has the capacity to run network traffic at near light-speed. Fiber can provide fast speeds well into the future. With more system vendors now beginning to mandate 'external cloud' access to their systems, the demand for stable, resilient and fast internet access may outpace county capacity. Once in place, there is no further maintenance to fiber required beyond addressing cuts if they occur. Dedicated fiber to the backup 911 center would provide for best access to county technical data and systems resources in the event of a problem with the primary connection or a local disaster.
3. Pursue a collaborative effort that could lead to wider service possibilities and mix funding from various sources to put a county-wide broadband foundation in place sooner.

**Relation to Other Projects**

Since this project would include the extension of fiber to the Emergency Operations Backup Center, E-911 funds could contribute to the funding of the project.

**Operating Impact**

Extension of county-owned fiber will eliminate approximately \$15,000 per year from the MIS operating budget to lease lines based on current costs. However, as access needs increase, leased line updates for additional speed will be needed at potentially higher monthly costs.

**Water District - Southwest Water District Distribution Lines Construction****Future**

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Install approximately 48 miles of water distribution mains in the Southwest Water District.

**Define Problem**

In order to provide county residents with a public source of drinking water, the Chatham County Board of Commissioners formed the Southwest Water District. The district is comprised of Bear Creek and Gulf townships. In November 2004, voters approved a bond referendum for extension of water lines in the district. Funding would be obtained from USDA-Rural Development. Since voting on the district, the county has solicited signups in the area to meet the requirements of USDA funding and needed density for operations. To date, the county has not received enough signups for the project to be viable. In addition, the preliminary engineering report is now outdated and would have to be redone for the project to move forward.

**Recommended Solution**

Assuming sufficient sign-ups, the project would include installation of approximately 48 miles of distribution main, ranging in diameter from six to eight inches, located on NCDOT rights-of-way. In addition to the new connections, the Southwest Chatham Water District would assume the ownership of the Southwest Chatham area water system currently owned and operated by Chatham County. This system consists of approximately 900 residential, commercial, and industrial customers. Water for the district would be provided through a bulk purchase arrangement with the Chatham County Utilities. Operation and maintenance of the district would also be provided by Chatham County Utilities through a contractual arrangement.

**Professional Services Needed**

The preliminary engineering report that was completed several years ago will have to be updated to reflect changes in material and labor costs and changes in demand projection based on growth.

**Operating Impact**

Additional funds would be needed for maintenance of the lines and water production, which should be offset by revenues generated in the district.