DATE: 02/21/12

WAKE COUNTY BOARD OF EDUCATION
Work Session

PRECIS

SUBJECT/TOPIC

PRESENTATION OF PROPOSED PLANNING ASSUMPTIONS FOR THE NEXT CAPITAL IMPROVEMENT PROGRAM

DEPARTMENT, BOARD/STAFF LIAISON(S), AND ANY PRESENTERS FROM OUTSIDE THE DISTRICT

Judy Peppler and Don Haydon

BACKGROUND

WCPSS and Wake County staffs have drafted proposed planning assumptions, which will serve as the basis for developing the next capital improvement program (CIP). Staff will present these assumptions and explain the next steps in developing the CIP.

FISCAL IMPLICATIONS

To be determined.

SAVINGS

NA

NEXT STEPS / RECOMMENDATIONS

This agenda item provides an opportunity for the Board to receive the planning assumptions for the first time and to provide direction to staff. Further discussion opportunities will be placed on the agendas of March work sessions.

Proposed Next Steps for Development of Capital Improvement Program

February 21:	Initial presentation of planning assumptions;
March 6:	Presentation by Wake county staff of Capital Financing Update; and continued review of planning assumptions;
March 20:	Initial presentation of data on new school needs;
April 3:	Initial presentation of data on existing school renovation needs; and continued discussion of new school needs;
April 14:	Continued discussion of existing school renovation needs;

DRAFT 2012

Capital Program Planning Issues

February 15, 2012

Items noted in blue are the Sept 2005 BoE/BoC board approved "Planning Issues"

Purpose

This document outlines the planning principles of the Wake County Public School System (WCPSS) long-range capital building program.

These planning principles will be used to identify and quantify the investment to construct new schools to accommodate the growing student enrollment and to ensure that existing schools are safe quality places for students to learn. The resulting project list will be prioritized and accomplished through multiple building programs. Future bond programs will be based upon a comprehensive capital improvement plan that addresses construction of new schools and renovation of existing schools.

Project priorities should:

1) ensure the health and safety of children and staff;
2) ensure adequacy of facilities and technology for effective learning;
3) reduce school overcrowding; and
4) provide sustainable facilities.

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The broad assumptions target the following key issues.

Planning Assumptions

PROGRAM

1. School Grade Configurations:

   a. Current grade configurations of Pre-K-5, 6-8 and 9-12 will be retained;
   b. Other grade configurations may be considered based upon educational suitability, space needs, and cost analysis.

2. Educational Program:

   Sept 2005 BoE/BoC Assumption:
   Children with specific needs will continue to be served in accordance with federal and state requirements. School models will include spaces to accommodate these requirements. Specific statutory references are listed below:

   Space will be provided to appropriately house programs to deliver the Standard Course of Study as prescribed by the State Board of Education; additional space may be provided in order to house additional educational programs approved by the WCPSS Board of Education.

   Children with disabilities will continue to be served in accordance with the Strategic plan that complies with federal and state requirements. New school design models will include spaces to accommodate these requirements.

   a. Classrooms Dedicated to Serving Students with Disabilities:
      Disability law requires the provision of special education and related/special needs services to students with disabilities, ages 3 through 21. It is inclusive of the Individuals with Disabilities Education Act (IDEA), Section 300 (Placement Decisions) and Section 504 of the Rehabilitation Act, Americans with Disability Act (ADA), and the NC Procedures Governing Programs and Services for Children with Disabilities.

      Student/teacher ratio changed from 9 to 8 as a result of The North Carolina Policies Governing Services for Children with Disabilities, June, 2007, which modified the student class size requirements (NC 1508-3). These modifications remain in effect.
      Go to: http://www.ncpublicschools.org/docs/ec/policy/2007policies.pdf;
      NC 1508 Class Size: School Age and Preschool on page 139.

	Sept 2005 BoE/BoC Assumptions	Future Building Program Assumptions	Impact
Elementary (std/sm)	3 Self-contained classrooms @ 9 students average; 2 Resource Classrooms (pull out)	Not Applicable	None
Elementary (lg) *	4 Self-contained classrooms @ 9 students average; 4 Resource Classrooms (pull out)	2 Adaptive Curriculum classrooms @ 8 students average; 6 Special Ed Services classrooms	Will result in zero more/fewer classroom at a cost of $0 per elementary school

	Sept 2005 BoE/BoC Assumptions	Future Building Program Assumptions	Impact
Middle (std/sm)	5 Separate Services classrooms @ 9 students average; 5 Resource Classrooms (pull out)	Not Applicable	None
Middle (lg) *	7 Separate Services classrooms @ 9 students average; 6 Resource Classrooms (pull out)	4 Adaptive Curriculum classrooms @ 8 students average; 9 Special Ed Services classrooms	Will result in zero more/fewer classroom at a cost of $0 per middle school
High (std/sm)	2 Separate Services classrooms @ 9 students average; 3 Occupational Course of Study @ 12 Students Average; and 7 Resource Classrooms @ 12 students average;	Not Applicable	None
High (lg) *	4 Separate Services classrooms @ 9 students average; 3 Occupational Course of Study @ 12 Students Average; 8 Resource Classrooms @ 12 students average	2 Adaptive Curriculum classrooms @ 8 students average; 3 Occupational Course of @ 12 Students Average; 10 Special Education Services Classrooms @ 12 students average	Will result in zero more/fewer classroom at a cost of $0 per high school

* Standard (small) elementary, middle and high schools were increased to larger (lg) capacities (May 16, 2006 Addendum).

b. Classrooms Dedicated to Serving General Education Support:
Classrooms serve the general population of students with special needs. These students are housed in regular classrooms and "pulled out" for special services in these classrooms:

1) Classrooms dedicated to serving Academically Gifted (AG) programs: – G.S.115C-150.7 requires local school districts "...to demonstrate it "is providing appropriate services to meet the diversity of identified academically or intellectually gifted students".
2) Intervention - State Board Policy 16 NCAC 6D.0505 requires local school districts to provide "…focused intervention to all students who do not meet statewide student accountability standards."
3) English as a Second Language (ESL): Title VI of the Civil Rights Act of 1964 and subsequent federal and state legislation and case law require local school districts to serve limited English proficient (LEP) students. LEP students are given special instruction in English.
4) Title 1: Title 1 of the Elementary and Secondary Education Act of 1965 requires local school districts "… to ensure that all children have a fair, equal, and significant opportunity to obtain a high quality of education and reach, at a minimum, proficiency on challenging state academic standards and state academic assessments.

	Sept 2005 BoE/BoC Assumptions	Future Building Program Assumptions	Impact
Elementary (std/sm)	3 General Education Classrooms (pull out)	Not Applicable	None
Elementary (lg) *	4 General Education Classrooms (pull out)	4 classrooms	Will result in zero more/fewer classroom at a cost of $0
Middle (std/sm)	2 General Education Classrooms (pull out)	Not Applicable	None
Middle (lg) *	3 General Education Classrooms (pull out)	3 classrooms	Will result in zero more/fewer classroom at a cost of $0
High (std/sm & lg) *	2 General Education Classrooms (pull out)	2 classrooms	Will result in zero more/fewer classroom at a cost of $0

* Standard (small) elementary, middle and high schools were increased to larger (lg) capacities (May 16, 2006 Addendum).

Additional classroom spaces may be considered for some schools in order for special needs students to remain in close proximity to their residence – a requirement of federal law.

3. Pre-kindergarten, Ages 3 through 4:

Sept 2005 BoE/BoC Assumption	Future Building Program Assumptions	Impact
All new elementary schools will include one classroom and outdoor play space for special needs students, ages 3 to 4.	Elementary schools will include two classrooms and an outdoor learning environment for students at risk or with disabilities, ages 3 through 4.	Will result in one more classroom at a cost of ~$XXK per elementary school

This is in accordance with the Individuals with Disabilities Education Act (IDEA) Part B, the federal law that states that children with disabilities age 3 – 21 "have the right to free and appropriate education." Title I Guidance strongly supports Pre-K programs and Section 1112(c)(1)(F) of the Elementary and Secondary Education Act requires LEAs to provide an assurance that they will take into account the experience of model programs for the educationally disadvantaged.

These programs are funded from state and federal initiatives. WCPSS has self-contained and blended classes, based on the needs of the students. If the classrooms are not used for these programs, then the room(s) converts to space to accommodate students in grades K-5. Otherwise, capacity for this space is reported separately from the K-12 calculations.

The Wake County Public School System is committed to expanding and ensuring quality pre-k classrooms in the district. Supporting children's development and learning in the early years, especially those at-risk or who face significant learning challenges, is an important strategy in preventing school failure. In addition, findings from the More at Four Pre-K Program Evaluation (http://www.fpg.unc.edu/~mafeval/pdfs/EOG_key_findings_11-2-10.pdf

and http://www.fpg.unc.edu/~mafeval/pdfs/EOG_report_11-2-10.pdf) indicate that children who are economically disadvantaged and participate in high quality pre-k had longer-term benefits in math and reading skills at the end of third grade. These results were consistent across all EOG outcomes and indicate that participating in high quality pre-k could assist in reducing the achievement gaps with economically disadvantaged students.

On a national and state level, there is a focus on quality early learning programs. North Carolina recently won a Race to the Top—Early Learning Challenge grant totaling approximately $70M from the U.S. Department of Education and the U.S. Department of Health and Human Services (http://www.governor.nc.gov/NewsItems/PressReleaseDetail.aspxnewsItemID=2186). These funds along with other state and federal funds will assist the district in providing quality pre-k learning opportunities for students.

WCPSS is not required to provide these services by law, but believes, and research supports, the impact that a quality pre-k experience has on student achievement.

If the cost of retention, students not graduating and the impact on society and the community when students aren't successful were considered, it would be a high cost. Therefore, there would theoretically be a cost savings by catching the kids early, rather than spending funds on multiple interventions later.

WCPSS has 101 Pre-K programs associated with 104 elementary schools in 2011-12. Long range plans identify five additional Pre-K programs in 2012 and seven the following two years. Twenty-three elementary schools are each currently accommodating 2 Pre-K classes.

4. Kindergarten Program:

Full-day kindergarten will continue to be offered.

5. Technology:

Sept 2005 BoE/BoC Assumptions:

a. Meeting the basic technology requirements in schools enables effective delivery of instruction as specified in the WCPSS Technology Plan and in alignment with the state technology plan;
b. the educational resources enabled by the technology infrastructure are effectively utilized in instructional delivery only with functional, capable computers;
c. School computer needs will be based on five computers per classroom, one per teacher and administrator;
d. A five-year replacement cycle will be included.

The utilization of technology is a key component of the learning and teaching process and preparation of students for graduation. The infusion of technology into curriculum, the utilization of technology infrastructure during instruction, and the provision of professional development will be included in the overall Program.

Technology is in a continual state of change. Assumptions made at the beginning of a Multi-Year Capital Program may become stale or no longer appropriate before the end of the Program. It is important the plan have capacity to amend the technology component of the Program during its term.

The information below is from the NC Public Schools website. The assessment focus for ACRE is on a comprehensive, balanced assessment system focused on using assessments to improve instruction and fairly assess learning and instructional effectiveness. DPI is also transitioning to online administration of assessments, including all EOGs and EOCs. The goal is to have all assessments online by the 2014-15 school year. Currently all EOCs (English I, Algebra I, Algebra II, Biology, Physical Science, Civics & Economics, and U.S. History) are available online. To learn more about Online EOCs, go to http://www.ncpublicschools.org/accountability/testing/eoc/. To learn more about the online requirements and the online testing system, go to: https://center.ncsu.edu/nc/mod/page/view.php?id=9271.

Quick Reference Guide to the Next Generation of Summative Assessments (pdf, 198kb) that includes the expected timeline for full implementation of online testing. (See attached 5. Technology-Summative Assessments)

Sept 2005 BoE/BoC Assumption:	Future Building Program Assumption	Impact
School computer needs will be based on five computers per classroom, one per teacher and administrator. A five-year replacement cycle will be included.	The technology infrastructure of newly built schools and the renovation of existing schools will meet the requirements of the State of North Carolina's requirements for on-line testing of all students by the 2014-15 school-year. This requires the complete implementation of one to one personal devices for all teachers and one to one devices for all students. Critical to this is the deployment of the necessary underlying infrastructure to support these one to one devices.	Will result in X more/fewer computer(s) at a cost of $X Details and costs to be finalized

SCHOOL CAPACITY & MEMBERSHIP

6. School Campus Capacity:

Sept 2005 BoE/BoC Assumption: School Capacity Models
New schools will be planned in accordance with the latest annual capacity report. The next building program's designs and construction will be based on the October 2005 Capacity Report's models, definitions, and assumptions.

Sept 2005 BoE/BoC Assumption: Student Accommodations
b. Long range capital planning will be based on a target of 95% utilization of permanent elementary and middle school seats, 97.5% utilization of permanent high school seats, and 100% of mobile and modular spaces. This allows for a 2 ½ % to 5% student management factor for flexibility in student assignment and classroom utilization, in recognition of the facts that: a) any given school's enrollment may increase during the school year; and b) it is not reasonable to achieve a one-to-one ratio (100% utilization) of students to available seats in a school, at a grade level, or in a classroom. Utilization targets will reached by 2015.

Facilities utilization will be based on class size averages and the optimum number of temporary classrooms supported by each school's program and site. The new Choice Student Assignment Plan provides controls for capacity to ensure optimal facility utilization at 100%. This plan offers the opportunity to align overcrowded schools with under-utilized ones and eventually bring all schools' utilization in line with their core facilities and site constraints. This will require the reallocation and eventual reduction of temporary classroom units, targeting those older than 25 years.

School models will be based upon allowable system-wide class-size ratios for numbers of students per classroom. NCGS 115C-301 and Session Law 2011-145 (House Bill 200) governs class sizes and maximum teaching loads.

NCDPI's manual: http://www.ncpublicschools.org/docs/fbs/accounting/manuals/sasa.pdf ("Chapter 4: Class Size - Teacher Daily Load Maximums" (See attached 6. Capacity-NCDPI's Manual)
WCPSS's allotment formulas for regular ed ADM teacher formulas are:

- Elementary: Integer ((Kindergarten)/20.97 + (Grade1+Grade2+Grade3)/19.97+(Grade4+Grade5)/27.10)*10
- Middle School: Integer((Grade6+Grade7+Grade8)/24.97)*10
- High School: Integer((Grade9+Grade10+Grade11+Grade 12)/26.47)*10

This does not include other types of teachers: specialists, CTE, Magnet, etc. (i.e. CTE: 22)

Class Size Requirements (Grade Span Average)				
Program	State Requirement	Sept 2005 BoE/BoC Assumptions	Future Building Program Assumptions	Impact
K-3	21 LEA-wide class size average	21	21	Will result in zero more/fewer classroom(s) at a cost of $0

	State Requirement	Sept 2005 BoE/BoC Assumptions	Future Building Program Assumptions	Impact
4-8	N/A	26	26	Will result in zero more/fewer classroom(s) at a cost of $0
9-12	N/A	24 (State Maximum = 29)	24	Will result in zero more/fewer classroom(s) at a cost of $0
Special Education K-12: Adaptive Curriculum * Special Education 9-12: Adaptive Curriculum *	Varies See #2	9 (Range of 4 to 16)	8 (Range of 4 to 12) 8 (Range of 4 to 14)	Will result in zero more/fewer classroom(s) at a cost of $0
Pre-K	Varies See #2 & 3	10	10 (Range 4 to 18)	Will result in zero more/fewer classroom(s) at a cost of $0

Note: Special Education average usage is based on Policies Governing Services for Children with Disabilities: NC 1508-3 Class Size Chart. See Planning Issue #2. High school total reflects average usage. *Also referred to as self-contained.

System-wide Long Range School Campus Capacity [LRSCC] utilization based on 20th day membership and optimum temporary classrooms

Status: As of October 2005:

	2005-06 20th Day Student Membership	LRSCC Seats	Optimal # Temporary CRs	% Utilization (Including Program Adj.)
Elementary School	58,220	46,907	199	124.10%
Middle School	27,686	24,797	45	111.70%
High School	34,286	30,286	40	113.20%
Special/Optional	315	356	0	88.50%
TOTAL	120,507	102,346	284	117.70%

Status: As of October 2011:

	2011-12 20th Day Student Membership	LRSCC Seats	Optimal # Temporary CRs	% Utilization (Including Program Adj.)
Elementary School	70,526	75,185	408	96.50%
Middle School	33,604	34,303	60	99.00%
High School	42,143	38,514	68	111.10%
Special/Optional	414	414	4	100.00%
TOTAL	146,687	148,416	540	101.30%

Increases due to the reassessment of criteria for optimal temporary classrooms to realize ~6,000 additional seats.

7. Temporary Classrooms:

Sept 2005 BoE/BoC Assumptions:
a. The goal is for no more than 8% of students to be in mobile/modular units, including modular schools; this does not include units provided as swing-space for renovation projects. This target will be attained by 2012 (5 years from the start of the next building program).

Optimum temporary classrooms should not exceed the maximum that can be supported by the core facilities (dining, office support, parking, playfields, etc.) with consideration of site limitations. Standard designs accommodate ~100 more seats or the equivalent of four temporary classrooms when the site allows. This does not include units utilized as swing-space for renovation projects. Mothballed or surplus units will be redistributed to better align a campus' efficiencies with its program.

The six 2003 adopted criteria for determining optimum instructional temporary classrooms (what the core can support) are reflected in the annual Facilities Utilization report:

1. can be physically accommodated on the site;
2. are permissible by the authorities having jurisdiction and by zoning, etc.;
3. can be supported by no more than one toilet trailer unit;
4. can be supported by dining room facilities with no more than 3 seatings based on Department of Public Instruction Guidelines;
5. can be accommodated within 300 feet of the closest building access point; and,
6. can be supported by specialized educational program spaces like Career Technical Education, science, gym, etc.
7. can be supported by vehicle traffic patterns.

A. Temporary classrooms as compared to total school capacities

	2005-06			2011-12		
	Optimum Long-Range Temporary Classrooms (Max Supported by Core*/Site) Total # / Percentage	Actual Temporary Classrooms Total # / Percentage	Difference	Optimum Long-Range Temporary Classrooms (Max Supported by Core*/Site) Total # / Percentage	Actual Temporary Classrooms Total # / Percentage	Difference
Elementary	199 / 8.2%	613 / 25.4%	414	408 / 12.5%	607 / 17.1%	199
Middle	45 / 4.2%	172 / 15.9%	127	60 / 4.5%	189 / 13.2%	129
High	40 / 2.8%	206 / 14.4%	166	68 / 4.2%	309 / 17.0%	241
TOTAL	284 / 5.7%	491 / 19.9%	707	540 / 8.5%	1106 / 16.4%	566

*Core includes dining, office support, group toilets, parking, playfields, traffic, etc

B. Schools and Temporary Classrooms

	Number of Schools that Exceed Optimum Temporary Classrooms		Number of Temporary Classrooms that Exceed Maximum/Number of Seats	
	Status as of October 2005	Status as of October 2011	Status as of October 2005	Status as of October 2011
Elementary	57	50	414 / 9,522	269 / 6,187
Middle	17	16	130 / 3,380	138 / 3,588
High	14	19	176 / 4,224	252 / 6,048
TOTAL	88	85	720 / 17,126	659 / 15,823

*Core includes dining, office support, group toilets, parking, playfields, traffic, etc.

8. Year-Round Calendar Schools:

Sept 2005 BoE/BoC Assumptions:

a. Additional year-round schools will be established in order to reduce the number of new schools to be constructed;
b. Consideration will be given to opening Brier Creek and Barwell Road elementary schools on a year-round calendar in 2006, and to opening future elementary and middle schools on the year-round calendar;
c. Future consideration will be given to the addition of single-track year-round calendar high schools that would support the multi-track year-round K-8 schedules.
d. Criteria for conversion will include over-crowding of existing schools, projected enrollment growth, health of converted school and impacted schools, the number of mobile/modular units, and other factors;

The multi-track, year-round school calendar is utilized to increase the capacity of schools and, as a result, decrease the number of school buildings required to accommodate student enrollment. When new school facilities are designed and operated around a multi-track, year-round calendar, a maximum 33% gain in student capacity over a traditional calendar can be attained at full utilization with all four tracks loaded.

Sept 2005 BoE/BoC Assumptions:

e. The number of schools to be established on a year-round calendar will be determined as part of a comprehensive facilities plan that addresses construction of new schools and renovation of existing schools, as well as the number of year-round schools.

The number of schools to be established on a year-round calendar will be determined as part of a comprehensive facilities plan that addresses construction of new schools and renovations of existing schools, assignment choice, feeder patterns, as well as the number of year-round schools. Objective would be to maintain the minimum portion of year-round schools.

	Number of Year-Round Schools / Total Schools		Number of Year-Round Seats / Total Seats	
	Status as of October 2005	Status as of October 2011	Status as of October 2005	Status as of October 2011
Elementary	11 / 88	35 / 104	9,267 / 55,572	31,320 / 76,351
Middle	4 / 28	9 / 34	5,079 / 28,099	12,174 / 37,233

9. Student Enrollment Projection:

   a. Staff from the Wake County and WCPSS will jointly produce enrollment projections. Enrollment projections will be reviewed and subsequently presented to the Board of Commissioners and Board of Education at a joint board meeting for approval.

   b. Enrollment projections will be developed for operating budget and capital budgeting purposes. The methodology for capital projections may vary from the methodology used for the operating budget projection.

      Capital projections are based on an economic cycle model, based on the need to project capital budgeting projections for a longer period of time over a varying economic climate. Economic indicators such as unemployment, sales tax revenue growth, building permits, as well as student enrollment indicators such as market share are taken into account. The operating budget is approached differently, based on the same rate of growth as the previous year.

LAND AND BUILDING

10. Energy and Environmental Guidelines:

Sept 2005 BoE/BoC Assumptions: High Performance Guidelines
WCPSS and Wake County support design principles that minimize life-cycle costs and energy costs, and do not have significant adverse effects on the environment. In design and construction, WCPSS will use jointly developed guidelines by Wake County and Wake County Public Schools for basic building materials (developed in January 2003) and energy efficient systems (developed June 2004). A cost benefit analysis of the proposed initiatives will be performed before implementation.

WCPSS and Wake County support design principles that minimize life-cycle costs and energy costs, and do not have significant adverse effects on the environment. On all projects, WCPSS will comply with the Guidelines for Design and Construction of Energy-Efficient County Government Facilities and Schools, dated June 2004 (jointly developed and adopted by Wake County Government and WCPSS). WCPSS will incorporate sustainable design features, wherever most financially responsible, consistent with the recommendations of the US Green Building Council in its LEED for Schools certification guidelines. A sustainability checklist will be used to optimize the use of "green" features in design and a sustainable energy cost benefit analysis will be conducted during Design Development of each project.

11. Renovation of Existing Facilities:

Sept 2005 BoE/BoC Assumptions: Renovation of Existing Schools:

a. The target of eliminating the backlog of deferred major renovation projects and deferred life cycle replacement projects will be attained by 2012 (5 years from the start of the next building program).
b. Existing school requirements will be included in one of the following categories:
    1. Life Cycle Replacements – individual systems to be replaced before failure;
    2. Major Renovations – complete renewal of structural, mechanical, electrical, plumbing, codes and program; renovation cycle is 40 years;
    3. Deferred major renovation and life cycle replacement projects -- buildings that are past the 40 year major renovation cycle, or systems that exceed industry recognized life;
c. Major renovation projects will be based on renovating 1/40th of the total system-wide square footage each year;
d. Major renovation projects (both deferred and cyclical) will be listed as separate line items on the prioritized project list; life cycle replacement projects will be summarized as a line item, with detail projects listed on back-up documentation. Project status will be reported in the annual "School Building Program Report to Stakeholders."
e. The school models, amenities and finishes (walls, floors, etc.) in renovated schools will be of same standard as new schools;
f. Spaces in existing schools will be considered adequate if the size is not less than 75% of the approved space standards;
g. Renovation costs exceeding 75% of new construction will trigger a life-cycle cost analysis of renovation vs. replacement;
h. WCPSS will assess by 2010 the total system-wide square footage. After 2010, WCPSS will assess 1/7 of the total system-wide square footage each year. WCPSS and Wake

County will enter into an inter-local agreement for the purpose of developing facility and maintenance standards for all classifications of buildings and develop benchmark comparisons for annual budgets for facilities maintenance.

i. Whole-building major renovation projects will be prioritized using the facility condition index (FCI) with an emphasis on Indoor Air Quality (IAQ), health and safety, and infrastructure preservation. Life-cycle replacements will be prioritized using the priority matrix that focuses on health, safety and immediate needs.

j. Existing sites will be reviewed to determine ability to add seats.

k. Major renovation projects will include funding for replacement of furniture, equipment, and technology if required.

a. Existing facility projects will be included in one of the following categories:
   i. Life Cycle Replacements – individual systems to be replaced before failure;
      1. Systems that are approaching or have exceeded system life will be targeted based on facility assessments
      2. All Life Cycle replacement projects will be summarized in one line item in the CIP
      3. Projects will be prioritized using a priority matrix that focuses on health, safety and immediate needs
   ii. Major Renovations – may include complete renewal or replacement of structural, mechanical, electrical, plumbing, codes and educational program;
      1. Facility square footage approaching or exceeding 40 years since a major renovation will be targeted for a potential project
      2. Projects will be prioritized using a weighted evaluation sheet that includes the Facility Condition Index (FCI), academic improvement, student assignment, and health and safety...
      3. Each project will be listed as a separate line item in the CIP
      4. The amenities and finishes (walls, floors, etc.) in renovated schools will be of same standard as new schools
      5. Spaces in existing schools will be considered adequate if the size is not less than 75% of the approved space standards
      6. Renovation costs exceeding 75% of new construction will trigger a life-cycle cost analysis of major renovation vs. demolition/replacement
      7. Existing campuses will be reviewed to determine ability to add capacity
      8. Funding will be included for replacement of furniture, equipment, and technology if required

b. WCPSS will conduct a facility assessment on $1/7^{th}$ of the total square footage each year. The assessment will identify facility deficiencies and system life cycle due dates. This data will be used to establish initial project scopes, determine facility condition index, establish priorities and project future requirements.

   1. As of 2005, 1.1 million out of 17.5 million permanent square feet exceed 40 years since a major renovation
      As of December 2011, 1.0 million out of 21.1 million permanent square feet exceed 40 years since a major renovation
   2. As of 2005, $73 million in unfunded deferred life cycle projects have been identified.
      As of December 2011, $85 million in unfunded deferred life cycle projects have been identified.

Square Footage by Year:

a) The square footage that turns 40 in 2012 = 27,998 GSF
b) The square footage that turns 40 in 2013 = 19,028 GSF
c) The square footage that turns 40 in 2014 = 57,162 GSF
d) The square footage that turns 40 in 2015 = 66,174 GSF

Total: 2012 - 2015 = 170,362 GSF
Total: 2016 - 2020 = 134,556 GSF (estimate)

12. New School Size and Space Standards:

a. School infrastructure, cafeteria, media center, and other core spaces will be designed to accommodate the number of students in permanent buildings, plus additional seats in potential temporary classrooms. Utility infrastructure and site plans will provide for temporary classrooms where site conditions allow;

b. Alternate and non-traditional sizes of schools and sites will be considered based on availability of property.

c. Square footage totals are based on the latest space standards and subject to change pending program and operational needs.

School model sizes:

		Sept 2005 BoE/BoC Assumptions			Future Building Program Assumptions		
	DPI Capacity Guide-lines	Building Capacity: Traditional Calendar	Building Capacity : Year-Round	Space Standards (Square Feet)	Building Capacity: Traditional Calendar	Building Capacity: Year-Round	Space Standards (Square Feet)
Elementary (std)	400	655	843	86,880	N/A	N/A	N/A
Elem. (lg)	700	800	1,124	102,970	780	1058	105k
Middle (std)	600-800	981	1,293	159,752	1,280	1,592	N/A
High (std)	800-1,200	1,663	N/A	261,744	2,228	N/A	N/A

* For purposes of establishing costs

	Space Standards (Square Feet)		
	Sept 2005 BoE/BoC Assumptions	May 16, 2006 Addendum	Future Building Program *
Elementary (lg)	102,970	104,039	105k
Middle (std>lg)	N/A	199,246	200k
High (std>lg)	N/A	333,798	335k

Note: Elementary additional SF reflects 1 additional Pre-K classroom @1,100 + Storage @50
*Net to Gross

(a) Capacity totals reflect capacity models and the reduction in the special education student ratio;
(b) Capacity totals include Special Needs teaching spaces to include both Special Education Services and General Education Support; elementary - 12; middle - 16; high - 17.
(c) Elementary (lg): Year-round has all double loaded tracks with 2 temporary classrooms; Middle (lg): Year-round has 1 double loaded track and 3 single tracks.

13. School Site Size & Property Acquisition:

Sept 2005 BoE/BoC Assumptions: School Site Size

The size of new school sites is based upon the educational program needs, the environmental/regulatory requirements of the jurisdictions in which they are located and configuration/topography of the site (refer to table below);
b. New school sites will be evaluated with Wake County and municipalities to determine the feasibility of joint development;
c. Land held by WCPSS will be the minimum practical number of acres needed for educational program and regulatory requirements;
d. The requirements of environmental and local ordinances will be met;
e. Continue the practice of building multistory middle and high schools. Elementary school height will be evaluated based on the cost of land versus the cost of multiple story construction. Elementary schools will be two stories, unless an analysis of construction cost versus land cost indicates single story is more economical.
f. For capital planning purposes, property acquisition will be based on average acreage requirement of 19 acres for elementary, 31 acres for middle, and 65 acres for high.

Sept 2005 BoE/BoC Assumptions: Property Acquisition

a. WCPSS will actively work with municipalities to create a multi-jurisdiction coordinated study to establish standards for land-banking;
b. Sites will be sought for land-banking five years in advance of the construction start dates;
c. Location and schedule of new schools will be guided by current crowding, projected growth, and increasing student assignment stability; new schools may also provide temporary swing space for renovations of schools in the area;
d. Due to the dynamic growth in real estate prices and the varying prices in different parts of the county, the trends in land cost data will be used for escalation of future prices;
e. Off-site utility and road construction will be budgeted as a separate line item;
f. The cost of off-site infrastructure and projected site development costs will be included in analyzing candidate school sites;
g. School sites are currently allowed in watersheds zoned R-40W. The additional siting and development of school sites within designated watershed areas will require significant policy discussion and potential legislative action. WCPSS, Wake County, municipalities, and stakeholders will be convened to discuss all relevant policy implications;
h. Note: The ownership of land remains an outstanding policy issue yet to be resolved.

Land will be the minimum practical needed for educational program and regulatory requirements. Future capital programs will utilize Department of Public Instruction (DPI) guidelines, plus two acres for temporary classrooms and/or additional municipal requirements such as extra queuing. Recommended site sizes should be:

	CIP 2006 Assumptions (avg. acreage)	Future Building Plan Assumptions (Net usable acres)
Elementary School	19	20
Middle School	31	30
High School	65	64

North Carolina Department of Public Instruction guidelines are as follows:

Sept 2005 BoE/BoC Assumptions		
Grades	Developable Acreage	Applied to WCPSS Standard School Sizes
K-6	10 + (1/100 ADM)	10 + (655/100) = 16.55
5-8	15 + (1/100 ADM)	15 + (981/100) = 24.81
7-9	20 + (1/100 ADM)	N/A
9-12	30 + (1/100 ADM) + (10 acres for stadium and parking)	30 + (1,663/100) + 10 = 56.63
Future Building Plan Assumptions		
Grades	Developable Acreage	Applied to WCPSS Standard School Sizes (excluding temporary classrooms)
K-6	10 + (1/100 ADM)	10 + (796/100 ADM) = 17.96
5-8	15 + (1/100 ADM)	15 + (1,304/100 ADM) = 28.04
9-12	30 + (1/100 ADM) + 10 acres for parking and stadium)	30 + (2,223/100 ADM) + 10 = 62.23

a. The size of new school sites is based upon the educational program needs, the environmental/regulatory requirements of the jurisdictions in which they are located and configuration/topography of the site;
b. New school sites will be evaluated to determine the feasibility of joint development with other governmental agencies;
c. The use of smaller tracts will be considered when necessary, but may require changes to a school's capacity and educational program;
d. Sites will be sought for schools five years in advance of the construction start dates and opportunities to identify sites will be actively worked with municipalities;
e. Location and schedule of new schools will be guided by current crowding, projected growth, and needs identified from data in the Choice Student Assignment Plan; new schools may also provide temporary swing space for renovations of schools in the area;
f. The projected cost of public infrastructure and site development will be included in analyzing candidate school sites;
g. Ideally, land should be procured (closed) at least 32 – 49 months prior to school openings, as shown in the following table:

	Months
Elementary School	32
Middle School	41
High School	49

h. Consideration will be given, on a case-by-case basis, to acquisition of existing buildings that would be suitable for conversion to schools; some traditional program elements might be compromised if such a facility were used;

14. Support Facilities:

a. Projects for essential health and safety items in existing support facilities will be listed as prioritized needs;
b. Enrollment growth as well as needs caused by normal usage and wear may require renovation and expansion of existing support facilities and construction of new facilities such as: satellite transportation centers, infrastructure upgrades and regional shops for maintenance personnel. Where appropriate, expansion may require property acquisition.

15. Security:

Project priorities include ensuring the health and safety of children and staff; that schools are safe quality places for students to learn. To that end, the following assumptions will ensure that these objectives are met. All new and existing schools shall have consistent security systems with the most up to date technologies equivalent to those used in all new schools.

All new facilities and major renovations shall utilize Crime Prevention through Environmental Design (CPTED) principles. The purpose of these proposed assumptions is to have a centralized security system for all schools.

System	Elementary	Middle	High
Closed Circuit Television System	IP based: 16 camera system	IP based: 32 camera system	IP based: 64 camera system
Access Control	Card swipe system	N/A	N/A
Visitor Management	Networked kiosk for visitor sign-in and sex offender checks	Networked kiosk for visitor sign-in and sex offender checks	Networked kiosk for visitor sign-in and sex offender checks
Intrusion Alarm System	Upgraded to audible	Upgraded to audible	Upgraded to audible
Public Address Systems/Intercoms	Broadcast location added for designated incident command (principal conference room)	Broadcast location added for designated incident command (principal conference room)	Broadcast location added for designated incident command (principal conference room)

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16. Program Price Bases:

Sept 2005 BoE/BoC Assumptions

a. Estimates for new schools and renovations are based on actual costs of PLAN 2004 projects bid in 2005;
b. Costs are based on BoE approved space standards and existing prototype designs and include: construction cost, on-site development, demolition, design, materials testing, surveying, hazardous materials abatement (if any), moving costs, interim housing, furniture, custodial equipment, media center equipment and books, educational equipment and technology infrastructure;
c. Land purchases are budgeted separately from construction project cost, and acquisition budget is based on the cost trend of PLAN 2004 purchases;
d. Off-site development costs will be listed in a separate line item and will be based on the actual costs of off-site development in PLAN 2004;

e. The cost of annual building assessments will be budgeted as a separate line item;
f. Renovation projects will have a 10% contingency; new school projects will have a 5% contingency
g. Project costs will be adjusted by 5% per year, through 2010, and 3.5% beyond that with an annual reassessment of actual costs;
h. The building program will have a 2% contingency, budgeted separately. This contingency is included to provide funding of emergency projects; or to provide funding in the event critical assumptions (class size, school site size, cost of property acquisition, enrollment projections, etc.) differ substantially from actual experience. The Board of Education will review such critical needs and, if appropriate, request that the Board of Commissioners reallocate funds.
i. Program management budget will be 3.5%.

a. Project estimates and the cost model will be developed for pricing the new bond and independently validated by at least two construction management companies;
b. Costs are based on BoE approved space standards, ed specs, design guidelines, and existing prototype designs. Cost may include: construction cost, site development, demolition, design, materials testing, surveying, hazardous materials abatement (if any), moving costs, interim housing, furniture, custodial equipment, media center equipment and books, educational equipment and technology infrastructure;
c. Land purchases and due diligence costs are budgeted separately from construction project cost and the acquisition budget is based on the cost trend of recent land purchases and economic projections;
d. Public infrastructure costs will be listed in a separate line item and will be based on the actual costs of current market trends;
e. The cost of annual facilities assessments will be budgeted as a separate line item;
f. Renovation projects will have a 10% contingency; new school projects will have a 5% contingency; (Same as used by County.
g. The inflation estimate will be determined based upon information provided by up to four different independent construction companies; project costs will be adjusted each year based on anticipated annual inflation.

h. The building program will have a 1.5% funded reserve budget. This budget would be used for funding of emergency projects or in the event critical assumptions (class size, school site size, cost of property acquisition, enrollment projections, etc.) differ substantially from actual experience. The reserve budget will be the designated location for any savings and will be held by the Board of Commissioners. Board of Education will review any critical needs and, if appropriate, request reallocation of funds from the Board of Commissioners.
i. Program management budget will be based on the number of projects and timing of delivery.
J To maintain a continuous building program, each CIP will include funds for the property acquisition and early start design of new projects funded in the next CIP.

17. Funding

a. The building program will be funded through a variety of funding options to potentially include general obligations bonds, pay-as-you-go funds, state and federal funding.
b. Pay-as-you-go funds should be targeted to non-capitalized technology and equipment. Alternate means of funding schools should be considered.
c. Lottery funds awarded to the county and WCPSS will be used towards debt service costs of WCPSS general obligation bonds
d. Opportunities for public/private partnerships will be considered, if advantageous to the educational program and if such partnerships are evaluated as cost effective.