



Every Child. Every Day. For a Better Tomorrow.

Quarterly Report on Facilities and Capital Needs Assessment

Board of Education
June 9, 2015



Update Topics

1. Facilities Maintenance Planning and Sustainment
 - Council of the Great City Schools Report
 - Facility Sustainment – Maintenance and Repair
 - Benchmark Funding Models
2. Facility Utilization – Capacity versus Use
3. Projected Student Growth and Population Trends
4. Availability of Real Estate and Potential Needs

Council of the Great City Schools (CGCS)

“Reversing the Cycle of Deterioration in the Nation’s Public School Buildings” October 2014

A two-year study assessing the impact on school districts nationwide being underfunded and making decisions to reduce the most cost effective types of maintenance and repair (M&R) work. The overwhelming result is premature deterioration of buildings and component systems due to deferred maintenance.

“Deferred Maintenance”

Deferred maintenance is a measure of the preventive and regular maintenance, minor and capital repairs, and capital system and component replacements that are needed to extend the life of the facility to achieve its projected life expectancy but that *have been postponed to a future date beyond the recommended service interval or breakdown.*

“Backlog of Work”

Build up of past due work due to underfunded M&R budgets

CMS Facility Investment



Estimated Current Replacement Value (CRV)

\$3,500,000,000

Benchmark and Annual Sustainment Funding Models

Maintenance and Repair (M&R)

1. **National Research Council** Study recommends a *minimal annual spend rate of 2% of current replacement value (CRV)* of buildings on proactive/reactive maintenance and repairs and major system renewals.
2. **Council of the Great City Schools** Study recommends public schools should be *funded annually at 1.5% of CRV* for preventive maintenance, routine maintenance and minor repairs *plus an additional 1% to 2%* for systems replacement and major repairs.
3. **CBRE/Whitestone** – referenced in the Whitestone Facility Maintenance and Repair Cost Reference 2014-15 – study recommends an annual sustainment funding model based on a 50-year life cycle and annual costs per gross square feet (CGSF) within 3 major M&R work types.

Major Categories of M&R

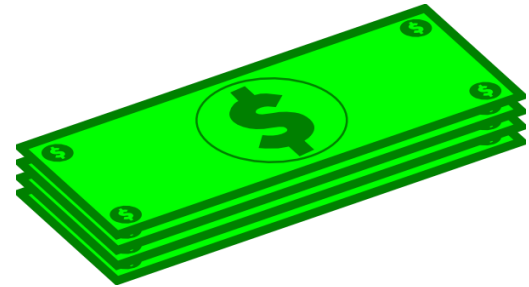
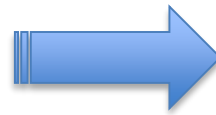
Annual Sustainment

1. **Preventative maintenance (PM) and minor repair** consist of scheduled tasks that sustain a component's level of service during a prescribed lifetime.

Studies indicate that every \$1 of preventive maintenance that is deferred will result in \$4 of future expenditures to ultimately repair or replace building systems.



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Major Categories of M&R

Annual Sustainment

2. **Major repair and replacement** consists of component overhaul or major replacement tasks. These tasks extend a component lifetime and reset the schedule of PM and minor repair tasks

Roofing

Electrical

Windows/Doors

HVAC

Ceiling Systems

Paint

Plumbing

Paving

Fire Protection

Carpet

Electronics

Athletic Facilities

3. **Unscheduled maintenance** consists of service calls, emergency response and other tasks that cannot be individually anticipated

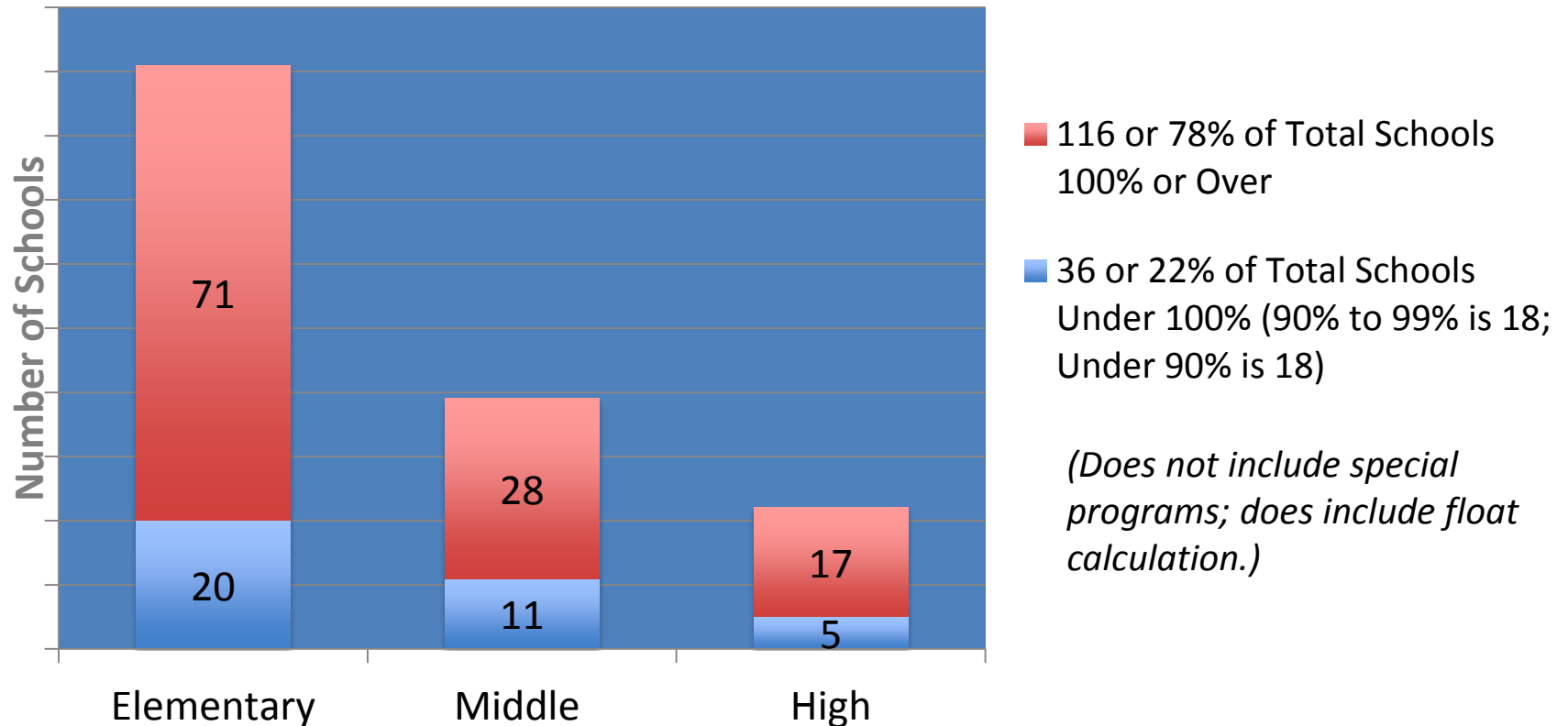
Work Not Included in M&R Budget

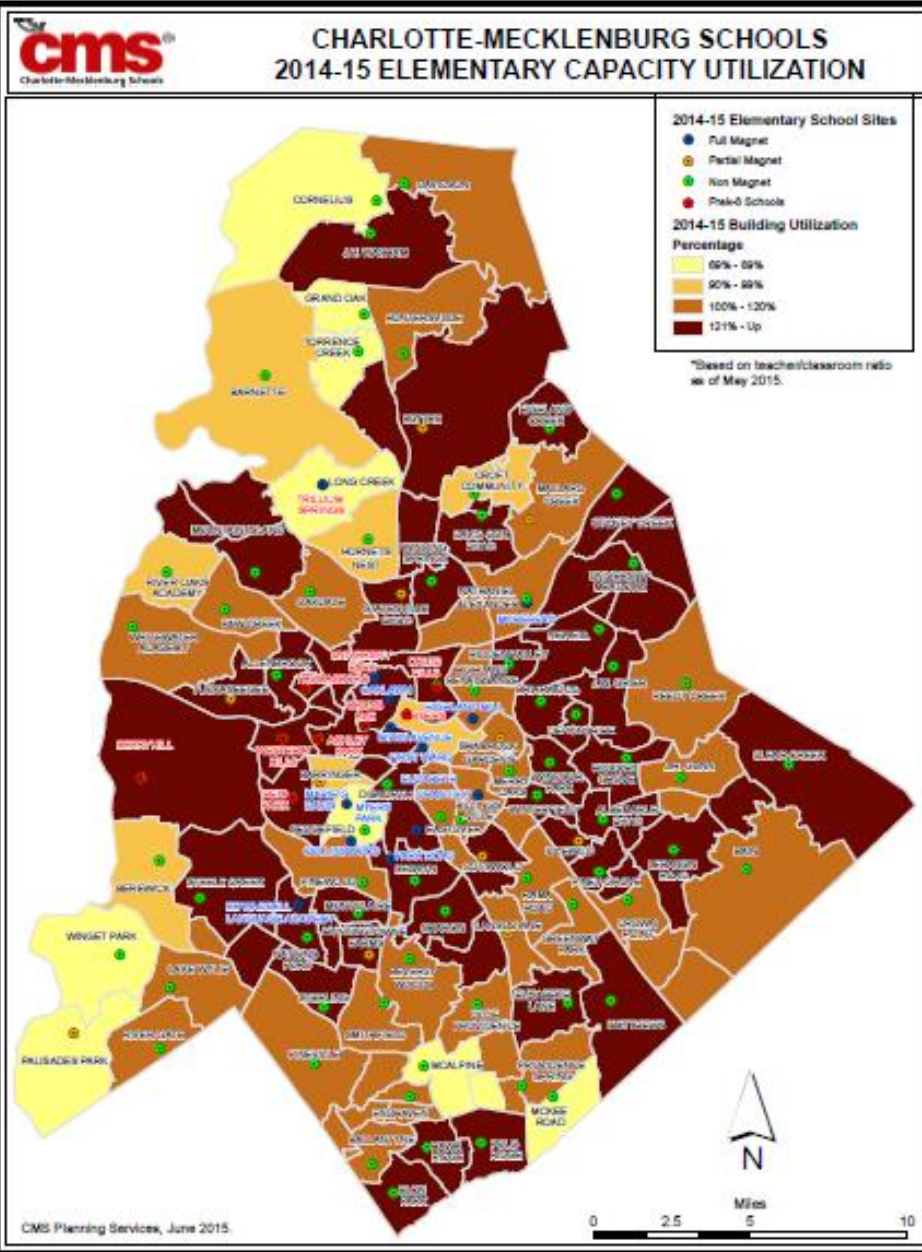
- ✓ Custodial work (i.e., services, cleaning)
- ✓ Pest control
- ✓ Refuse collection and disposal
- ✓ Grounds care, landscaping
- ✓ Environmental operations
- ✓ Security services
- ✓ Utilities

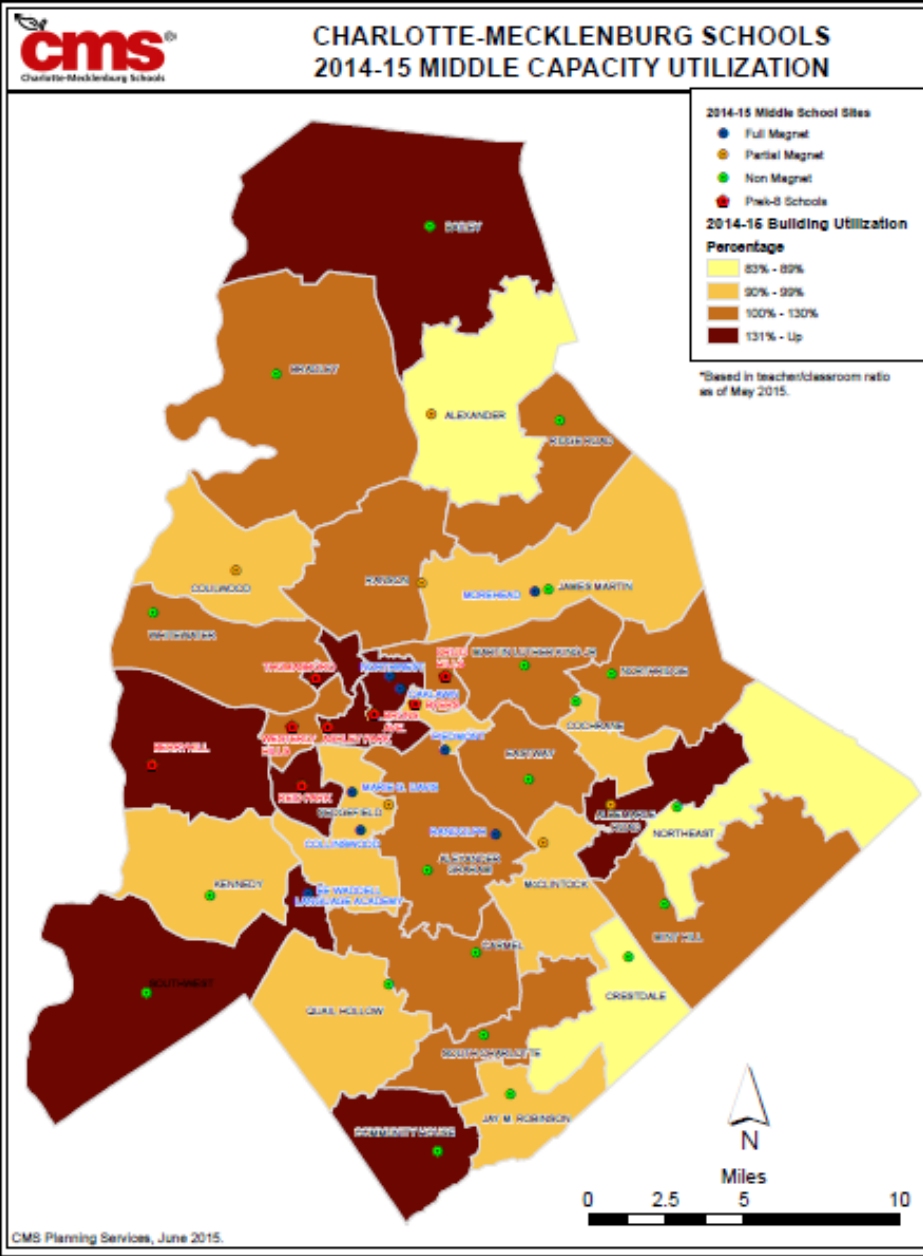
Annual Sustainment Funding Estimates

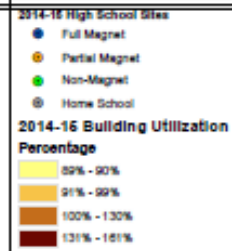
Sustainment Funding Model	Projected M&R Annual Budget	2014-15 CMS Adopted M&R Budget	Difference Needed for Annual Sustainment
National Research Council	\$70,000,000	\$24,162,058	\$45,837,942
Council of the Great City Schools	\$87,500,000	\$24,162,058	\$63,337,942
CBRE/Whitestone	\$58,000,000	\$24,162,058	\$33,837,942
Assumptions			
CMS Total School Building GSFT = 20 Million			
Current Replacement Cost Per GSFT = \$175			
Total CRV = \$3.5 Billion			
Life Cycle of School Buildings are Based on 50 Years			

School Classroom Capacity/Utilization

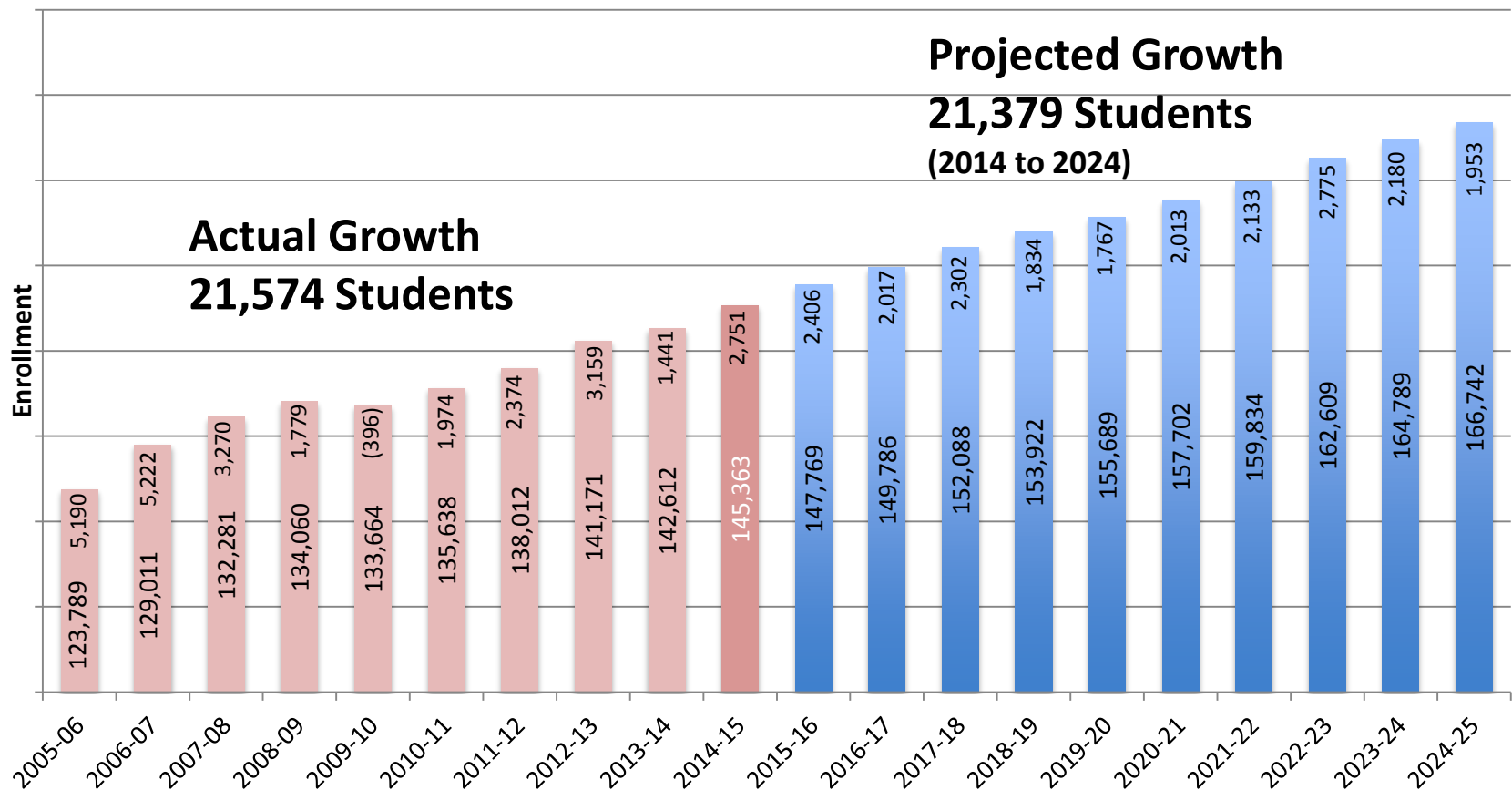






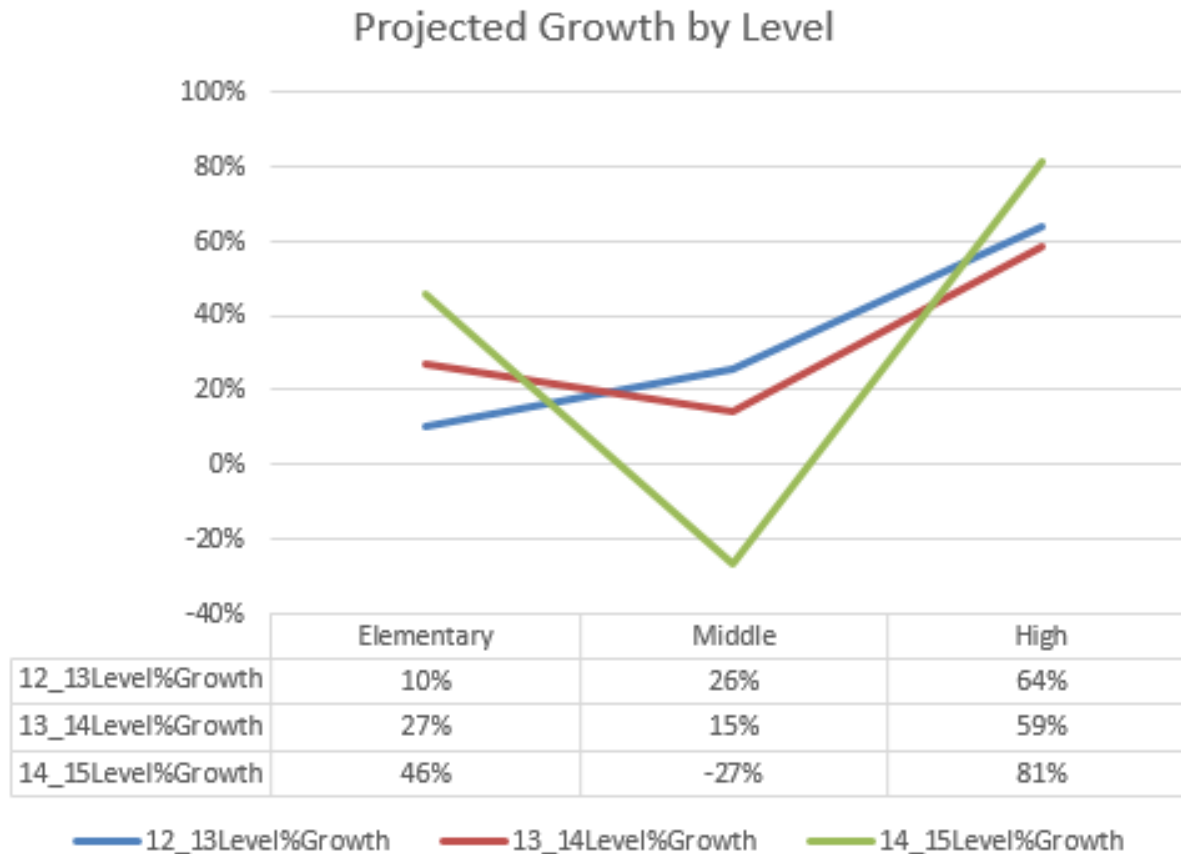


District Ten-Year Projection



Numbers at top of bars are growth from previous year.

Projected Student Growth by Levels Based on Recent Trends



CMS Schools Baseline Standard

Level	Baseline Classrooms	Acreage
Elementary School	39	8 – 15
K-8 School	54	8 – 20
Middle School	54	20 – 30
High School	100	30 – 60

Mobile Classrooms

Example to calculate *the estimated* number of schools needed if we eliminated mobiles by 100%

604 elementary school classrooms operate in mobile units

A typical new elementary school has 39 classrooms

It would take building 15.5 new elementary schools today to eliminate elementary mobiles

257 middle and K-8 school classrooms operate in mobile units

A typical new middle and K-8 school has 54 classrooms

It would take building 4.8 new middle and K-8 schools today to eliminate middle and K-8 mobiles

237 high school classrooms operate in mobile units

A typical new high school has 100 classrooms

It would take building 2.4 new high schools today to eliminate high school mobiles

Utilization and Projected Growth

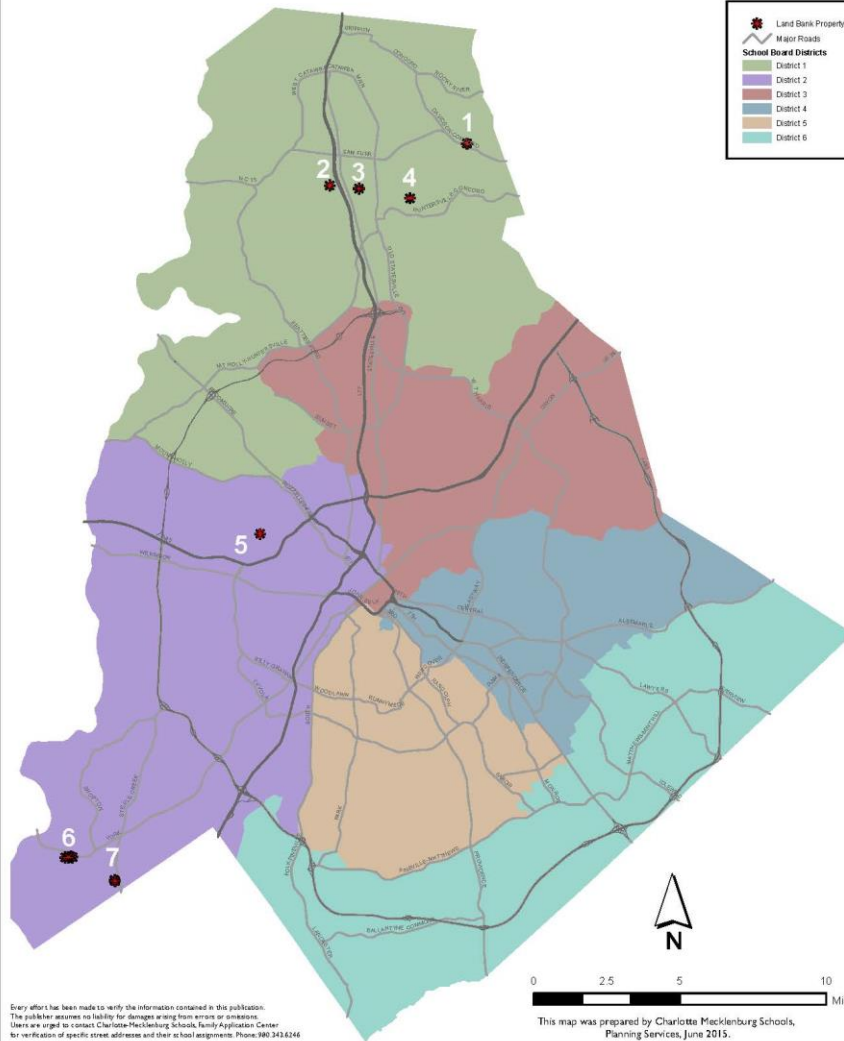
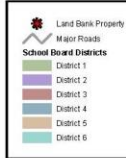
Level	Mobile Replacement	Growth	Total Schools Needed	Estimated Acreage Needed
Elementary School	15.5	4	19.5	8-15
Middle School/K-8	4.8	1	5.8	20-30
High School	2.4	8	10.4	30-60
Total			35.7	

This example calculates potential schools based on historical grade configurations for elementary, middle and high schools. If there are modifications to the school baseline standards, the calculations and solutions will change.

CHARLOTTE-MECKLENBURG SCHOOLS

2014-2015 Land Bank Property

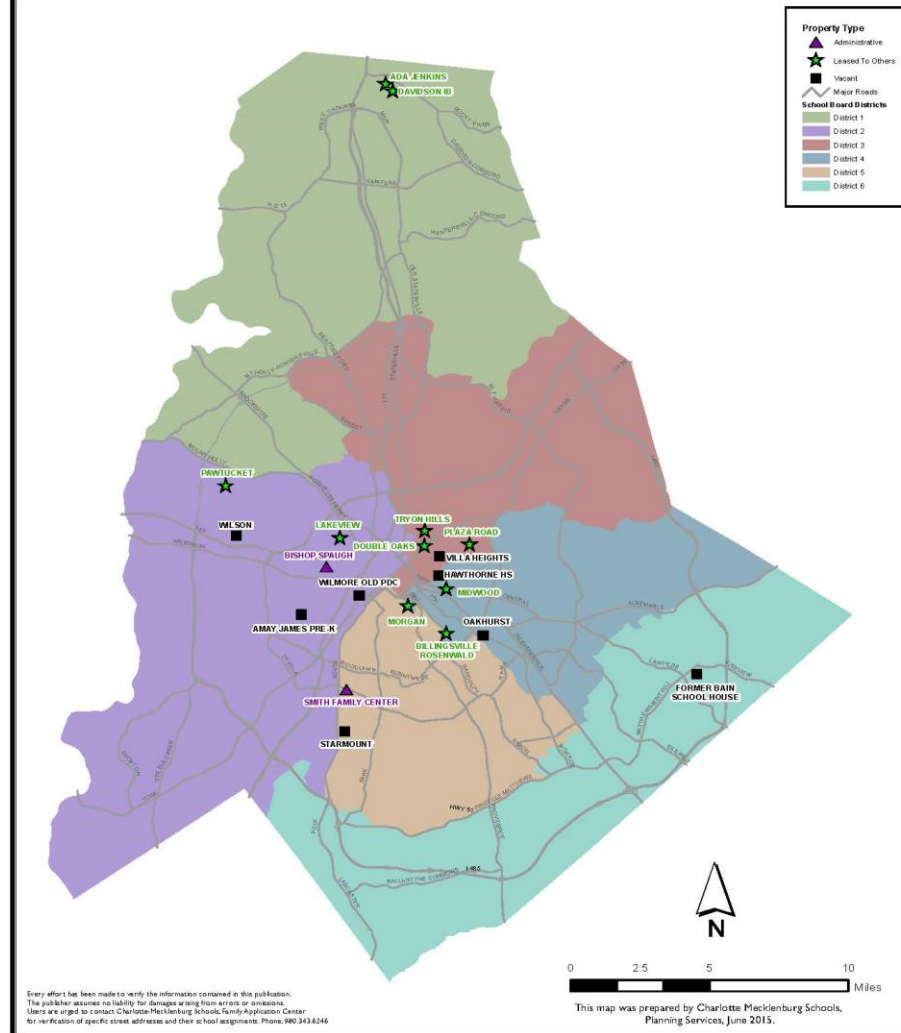
By School Board District



CMBE REAL ESTATE - LAND BANK SITES

SITE #	PROPERTY ADDRESS	CITY	LAND AREA (AC.)
1	16912 DAVIDSON-CONCORD RD	DAVIDSON	12.320
2	15444 STUMPTOWN RD	HUNTERSVILLE	57+/-
3	13832 STUMPTOWN RD	HUNTERSVILLE	34.596
4	HUNTERSVILLE-CONCORD RD	HUNTERSVILLE	20.908
5	FREEDOM DRIVE	CHARLOTTE	51.960
6	14847 YORK RD	UNION	73+/-
7	16100 STEELE CREEK RD	CHARLOTTE	30.512
TOTAL			282.418

CHARLOTTE-MECKLENBURG SCHOOLS 2014-2015 Leased/Administrative/Vacant Schools By School Board District



Charlotte-Mecklenburg Schools Facilities

Leased, Administrative, and Vacant Schools List as of June 5, 2015

Facility	Number of Classrooms (Estimated)	Facility Owned by CMBE/Leased to Others	Address	Lease Expires w/o Options
Ada Jenkins		Town of Davidson	212 Gamble St. Davidson, NC 28036	6/30/2019
Billingsville Rosenwald School		Grier Heights Community Center	3100 Leroy St. Charlotte, NC 28205	1/31/2029
Davison IB School	11	Lake Norman Christian	251 South Street Davidson, NC 28036	12/16/2016
Double Oaks School	25	Zechariah Alexander Lodge	1326 Prince Hall Avenue Charlotte, NC 28206	1/31/2017
Lakeview School		Lifespan	3127 Kalyne Street Charlotte, NC 28208	6/30/2019
Lakeview School		Lakewood Preschool	3115 Kalyne Street Charlotte, NC 28208	12/31/2021
Midwood School	20	International House of Charlotte	1817 Central Avenue Charlotte, NC 28205	11/17/2017
Morgan School	9	Community Charter School	510 S. Torrence Street Charlotte, NC 28204	6/30/2017
Pawtucket School	23	Access Family Services	8701 Moores Chapel Road Charlotte, NC 28214	12/31/2016
Plaza Road School	20	Linmerris/Plaza Rd. Children's Academy	1000 Anderson Street Charlotte, NC 28205	11/14/2016
Tryon Hills School	18	Bethlehem Center of Charlotte	2600 Grimes Street Charlotte, NC 28206	11/14/2016

Charlotte-Mecklenburg Schools Facilities
Leased, Administrative, and Vacant Schools List as of June 5, 2015
(continued)

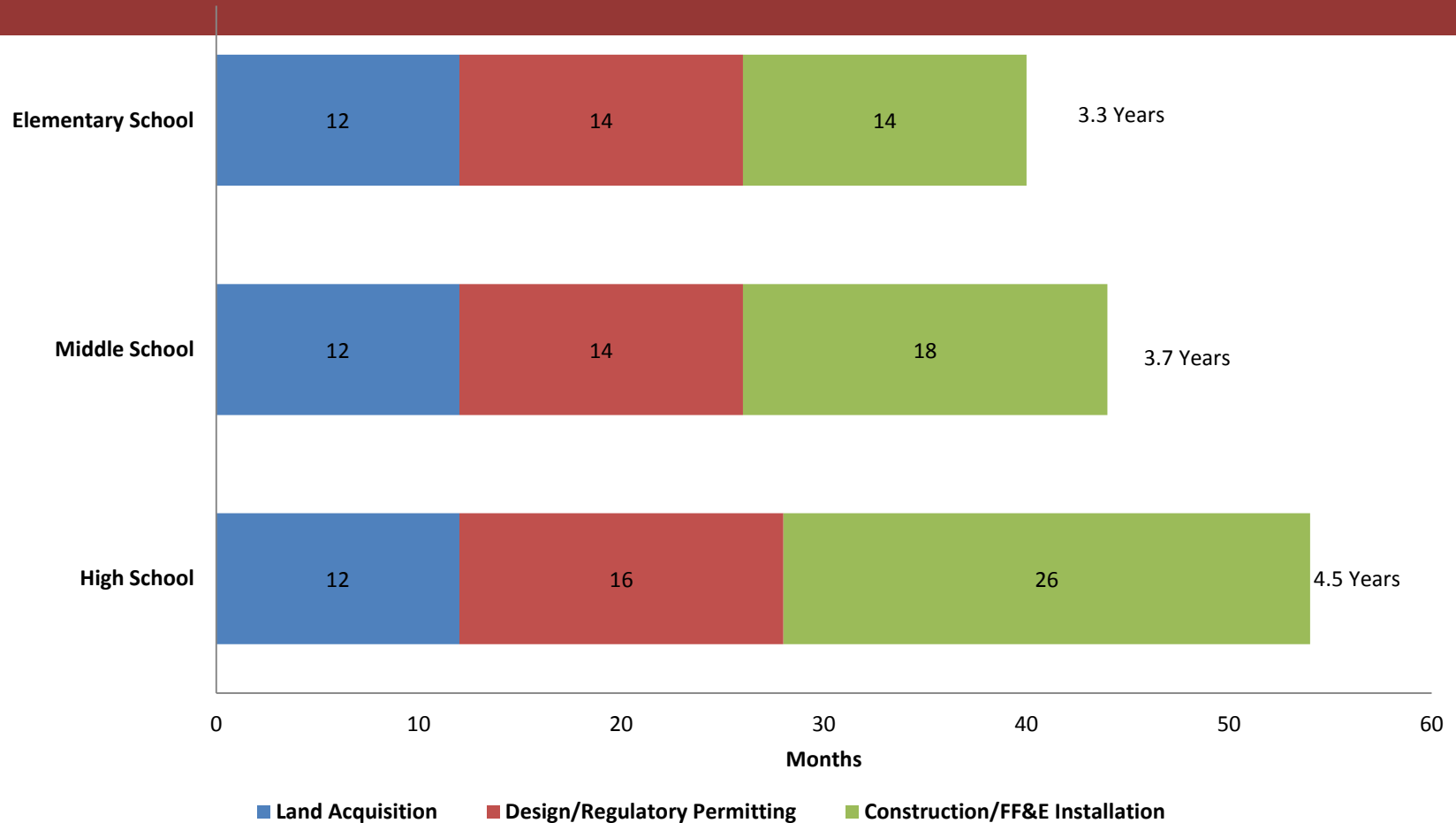
Facility	Number of Classrooms (Estimated)	Facility Owned by CMBE/ ADMINISTRATIVE	Address	Lease Expires w/o Options
Bishop Spaugh School	42	Human Resources	1901 Herbert Spaugh Lane Charlotte, NC 28208	
Smith Family Center	44	Admin./EC programs	1600 Tyvola Road	

Facility	Number of Classrooms (Estimated)	Facility Owned by CMBE/ VACANT	Address	Lease Expires w/o Options
Amay James Pre-K		VACANT - Will re-open Aug. 2015	2414 Lester Street Charlotte, NC 28208	
Bain School House		VACANT - Renovation group contemplating use	11524 Bain School Road Charlotte, NC 28227	
Hawthorne HS		VACANT - Will re-open Aug. 2015	1411 Hawthorne Lane Charlotte, NC 28205	
Oakhurst School		VACANT - Will re-open Aug. 2015	4511 Monroe Road Charlotte, NC 28205	
Starmount School		VACANT - Will re-open Aug. 2015	1600 Brookdale Avenue Charlotte, NC 28210	
Villa Heights School		VACANT – lease contemplated	800 Everett Place Charlotte, NC 28205	
Wilmore School (Old PDC)	15	VACANT	424 West Blvd. Charlotte, NC 28203	
Wilson School		VACANT - Will re-open Jan. 2016 (Estimated)	7020 Tuckaseegee Road Charlotte, NC 28214	

10-Year Potential Need for Land

Level	Acreage Range Per Level	Proposed Number of Schools Needed	Estimated Range Total Acreage	Benchmark Cost for Land at \$100K/Acre (estimate)
Elementary	8 – 15	19.5	156 - 292.5	\$15.6M – \$29.25M
Middle	20 – 30	5.8	116 - 174	\$ 11.6M – \$17.4M
High	30 – 60	10.4	312 - 624	\$ 31.2M – \$62.4M
Total		35.7		\$ 58.4M - \$109.05M

Typical New School Construction Schedule



Next Steps

September 2015

- Continue work on capital needs assessment
- School Overview Information Sheets – see sample
- Preventative Maintenance, Facility Condition Index and Jacob's Report recommendations and implementation plan
- Recommendations for target areas for land acquisition
- Recommendations considering surplus real estate

Questions