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Teaching and Learning
for All*

Darlington County School District
Darlington, South Carolina
August 8, 2012

Hartsville Area Schools - Building Evaluations

School Name: North Hartsville Elementary Observed By: Cannon/Carter
Principal: Ms. Kristi Austin
Grade Levels: 1st – 5th Grades
Site Size: Approximately 12 Acres
Student Population: 720 (Approximate Student Population)
Staff Size: 70 (Approximate Staff Size)

Campus Narrative and General Observations:

Locate on a sloping site, the school fronts School Drive and falls to the rear (north) and towards Ruby Road at the east. Beyond the rear drives, the site slopes more severely to its lowest elevation at the northern most point. The site is bordered on the east, south, and west sides by streets and on the north side by private property which includes a pond. The original school building of 44,500 sf built in 1951, has had two major additions. These additions consisted of a 52,000sf addition in 1985 and a 23,300sf addition in 1991. Connectivity between the original building and the two additions occurs via an exterior covered canopy system. Campus security is obtained by a combination of picketed aluminum (wrought iron look) and chain link fencing systems.

Vehicular and bus access to the site is poor during peak drop off and pickup times. It was stated that there are complaints from Lakeview Baptist Church, on Byrd Street, in reference to their inability to access the church due to cars blocking church drives.

Since the buildings are not connected through an enclosed protected structure, security is a greater issue as doors to buildings must remain unlocked to allow access to students and staff. Additionally, moving from building to building in inclement weather subjects students and staff to rain, cold, heat and wind. These conditions contribute to higher energy costs, greater maintenance, and wet floors creating slip/fall hazards and damage to flooring and floor substrates.

With the exception of the recently reroofed 1951 building which has a new metal roof, building construction consists of masonry load bearing walls and bar joists with low sloped roofs. The ages of the buildings dictate varying compliance to a variety of building codes creating many noncompliant conditions as it relates to current codes.

Physical Education, Music and Art, and Guidance are all located in mobile classroom units.



FACILITIES OVERVIEW					
SYSTEM	0 (adequate)	1 (mild need)	2 (strong need)	3 (critical need)	REMARKS
Safety and Health					
Site Security				■	The Campus is an open campus with numerous access points and no means of control.
Traffic Patterns				■	Traffic patterns are awkward for parents and visitors Backup creates neighborhood concerns
Main Entrance		■			Although the entry does not form a secure lock, it is relatively visible to staff
Exterior Doors			■		Lack energy efficiency Have some hardware issues Have some ADA issues considering, clearances, pull pressure, and hardware
Interior Doors			■		ADA door clearances In most cases, doors have been replaced and meet fire rating requirements Hardware replacement is needed to meet ADA
Windows			■		In some areas, windows do not meet OSF egress requirements Many windows are not energy efficient
Fire Alarm	■				Recently replaced Emergency lights require testing for foot candles and to ensure batteries are functioning
Fire Protection			■		Wall ratings in the 1951 and 1985 buildings are questionable Buildings are non-sprinkled



Technology			■		Most instructional areas have had technology upgrades Removal of abandoned wiring and outdated televisions is recommended.
HVAC			■		Units do not appear to provide air changes to meet ASHRAE fresh air requirements Air quality in most cases is below average
Mold/Moisture			■		There is some evidence of mold growth in certain areas
Plumbing			■		While plumbing systems appear to be functioning, many fixtures are not in good condition nor meet ADA accessibility requirements
Teacher Work Areas			■		Appear to be lacking in quantity, technology, and size
Electrical			■		Most switches are not ADA compliant GFI breakers are needed at wet areas
Lighting			■		Fixtures do not meet ASHRAE 90.1 standards Emergency lighting is required at exterior doors
Electrical Rooms			■		Storage is occurring in front of panels Noncompliant floor clearances exist In some instances wiring was not color coded per NEC Some panels are old and replacement breakers may be unavailable
Data/Server				■	Space is not adequate in size Security issues exist Power may not be dedicated Backup power capacity is questioned



ADA Compliance				■	Many noncompliant toilets Many room side door clearances are noncompliant Ramps and rails are noncompliant
Code Compliance				■	Numerous violations including: life safety; energy efficiency; accessibility; and seismic to name a few.
Roof				■	With the exception of the new metal roof, all roofs are in need of maintenance and replacement is recommended.
Structure		■			Minor cracking of masonry is evident Seismic upgrades may be required
Appearance and Finishes					
Curb Appeal				■	Curb appeal is lacking First impressions of the buildings from School Drive is of fencing, mobile units, and aluminum canopies
Grounds				■	While average as compared to other schools in the District A phased landscaping master plan is recommended
Exterior Envelope				■	Paint is peeling on exterior steel Exterior door frames are in need of caulk and paint Masonry requires some tuck pointing Windows require replacement
Ceilings			■		Water stains are evidence of roof leaks Communication wires are laying on ceiling systems
Walls			■		Painting to freshen the buildings is recommended

Flooring		■			Carpet, where existing, is in poor condition and requires replacement VCT overall is in fair condition
Core Space Assessment					
SYSTEM	0 (adequate)	1 (mild need)	2 (strong need)	3 (critical need)	REMARKS
Administration		■			Office areas and waiting appear adequate The addition of a security lock is recommended
Health Room		■			Appears adequate
Guidance				■	Guidance is currently housed in a Mobile Unit The guidance area should be house within the building structure
General Classroom Status			■		With a student population of 720 and 33 classrooms the average number of students/classroom is 22. This is slightly higher than other elementary schools in the District. Toilet facilities in Buildings 2 and 3 need to be brought to current ADA standards
Cafeteria/Kitchen		■			The size is appears adequate for the size school Serving line flow seems functional Toilet facilities appear adequate but do not meet ADA standards Additional natural light is recommended
Media Center			■		Low ceilings create a confined feel Windows are needed for natural light The space could be larger considering the students served



Art Room			■		Natural light is lacking Ductwork through the space Space and sink numbers seem to function well Outdoor areas for 2-D and 3-D art are suggested One itinerate Art class appears to be taught in a Mobile Unit
Science Room		■			There is a Science Classroom which appears to function well for the student population.
Music Room			■		Height and area would add to the existing space One itinerate music class appears to be taught in a Mobile Unit
Physical Education Space				■	Is currently housed in Mobile Units The school lacks a multi-purpose space
Stage/Theater					
Records Vault		■			
Other:					Connect buildings to increase security Collaborative areas for Students and Instructors are recommended Introduction of natural light into learning environments is needed Consideration of ambient noise when selecting mechanical systems Consideration of air quality when selecting mechanical systems Low flow toilets and plumbing fixtures Use CFL or LED lighting to reduce energy Traffic issues Mobile Units need to be removed
Comments:					



Spatial Area Comparisons:

Area	Existing Square Footage	Recommended Square Footage
Administration	3000 sf	3500sf Adding enough space for two additional staff
Guidance	Mobile Unit	800 sf This will provide enough space for a Guidance Suite
Media Center	Adequate	
Kitchen	Adequate	
Cafeteria	Adequate	
Classrooms	Adequate	Provided K-4 and K-5 programs are not included in this school
Gymnasium/P.E.	At Cafeteria	Access requires going through the Cafeteria area.
Music Room	One existing Part time housed in Portable	Space needed The architects suggest making an additional multifunction Fine Arts Room
Art Room	One existing Part time housed in Portable	Space needed The architects suggest making an additional multifunction Fine Arts Room
Science Rooms	Adequate	
Group Toilets		Renovations Required
Staff Workrooms		Space Needed
Staff Toilets		Additional Toilets Needed



Building 1: (1st thru 3rd Grades)
 Year Const.: 1999
 Renovations: None
 Square Footage: 29,700 Single Story
 Total: 29,700 29,700

Total Classrooms: 15 Classrooms w/toilets
 5 Classrooms w/o toilets
 1 set Group Toilets

Total Occupancy: 25/classroom x 20 = 500

Building Systems:

Footings: Spread
Structure: Steel Bar Joist on Load Bearing
 Masonry

Exterior Walls: Load Bearing CMU/Brick Veneer
Fenestration: Aluminum Double Hung and fixed
 Storefront

Exterior Doors: Hollow Metal Frames and Aluminum
 Storefront

Roof System: 4-Ply Built-up Roof on metal deck
Finishes: Average to Good. Floors-VCT
 Corridors and Classrooms; Acoustic
 ceilings; and Painted CMU walls

Plumbing Systems
Mechanical Systems:
 Classrooms: Wall Hung Bard Units
 Office: Packaged Roof Mounted Heat Pumps

Electrical System: 277/480V System
Fire Alarm: Recently upgraded
Emergency Lighting: Wall Mounted Battery Backup

2006 IBC Code Review:

Utilities: City of Hartsville
Occupancy: Educational Type "E"
Construction Type: II B Unprotected/Un-sprinkled
Area Allowed: 14,500 sf
Maximum Stories: Two (2) Stories
Occupant Load:

Fire Rated Assemblies:
 Fire Barriers: Corridors appear to meet 1 hr. req.
 Structural Steel: No Ratings Required
 Roof/Ceiling: No Ratings Required
 Fire Walls: 3 hr. at tie to Building 2

Toilets:
 Toilet Counts: Appear to be adequate
 ADA Accessibility: Appear to be compliant



Building 2: (4th and 5th Grades)
 Year Const.: 1985
 Renovations: 1999
 Square Footage: 15,500 Single Story
 Total: 15,500 15,500

Total Classrooms: 13 Classrooms 4th and 5th grades
 2 Fine Arts (1 Music and 1 Art)
 1 set Group Toilets

Total Occupancy: 13/classroom x 25 = 325

Building Systems:

Footings: Spread
Structure: Steel Bar Joist on Load Bearing Masonry

Exterior Walls: Load Bearing CMU/Brick Veneer
Fenestration: Aluminum Double Hung and fixed Storefront

Exterior Doors: Hollow Metal Frames and Aluminum Storefront

Roof System: 4-Ply Built-up Roof on metal deck
Finishes: Average to Good. Floors-VCT Corridors and Classrooms; Acoustic ceilings; and Painted CMU walls

Plumbing Systems
Mechanical Systems: Copper Supply/Cast Iron Waste

Classrooms: Wall Hung Bard Units
Electrical System: 277/480V System
Fire Alarm: Recently upgraded
Emergency Lighting: Wall Mounted Battery Backup



2006 IBC Code Review:

Utilities: City of Hartsville
Occupancy: Educational Type "E"
Construction Type: II B Unprotected/Un-sprinkled
Area Allowed: 14,500 sf
Maximum Stories: Two (2) Stories

Fire Rated Assemblies:
Fire Barriers: Corridors appear to meet 1 hr. req.
Structural Steel: No Ratings Required
Roof/Ceiling: No Ratings Required
Fire Walls: 3 hr. at tie to Building 1

Toilets:
Toilet Counts: Appear to be adequate
ADA Accessibility: Non-compliant



Building 3: (Cafeteria/Media/Computer/Resource)

Year Const.: 1951
 Renovations: 1999
 Square Footage: 21,000 Single Story
 Total: 21,000 21,000

Total Classrooms: 4 Labs (Science, Computer, Resource)
 3 Resource (Speech, ESL, etc.)
 2 sets Group Toilets
 Total Occupancy: N/A

Building Systems:

Footings: Spread
 Structure: Steel Bar Joist on Load Bearing

Exterior Walls: Masonry
 Load Bearing CMU/Brick Veneer
 Fenestration: Aluminum Double Hung and fixed
 Storefront

Exterior Doors: Hollow Metal Frames and Aluminum
 Storefront

Roof System: New Metal Retrofit Roof System over
 4-Ply Built-up Roof on light-weight
 concrete deck on bulbbed tees.

Finishes: Average to Good. Floors-VCT
 Corridors and Classrooms; Acoustic
 ceilings; and Painted CMU walls
 Plumbing Systems: Copper Supply/Cast Iron Waste

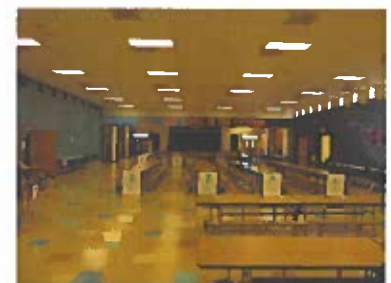
Mechanical Systems:
 Classrooms: Wall Hung Bard Units
 Electrical System: 277/480V System
 Fire Alarm: Recently upgraded
 Emergency Lighting: Wall Mounted Battery Backup

2006 IBC Code Review:

Utilities: City of Hartsville
 Occupancy: Educational Type "E"
 Construction Type: II B Unprotected/Un-sprinkled
 Area Allowed: 14,500 sf
 Maximum Stories: Two (2) Stories

Occupant Load:
 Fire Rated Assemblies:
 Fire Barriers: Ratings are questionable (1 hr. req.)
 Structural Steel: No Ratings Required
 Roof/Ceiling: No Ratings Required
 Fire Walls: None Required

Toilets:
 Toilet Counts: Appear to be adequate
 ADA Accessibility: Non-compliant



Mobile Unit 1: (Physical Education)

Year Const.:

Renovations:

Square Footage: 720

Total:

Mobile Unit 2: (Physical Education)

Year Const.:

Renovations:

Square Footage: 720

Total:

Mobile Unit 3: (Guidance)

Year Const.:

Renovations:

Square Footage: 720

Total:

Mobile Unit 4: (Music/Art)

Year Const.:

Renovations:

Square Footage: 720

Total:

Total Campus Square Footage

66,200

Recommendations:

Several major issues with North Hartsville Elementary School which mainly are attributed to: traffic; building connectivity/security; and mobile classroom unit elimination.

To transform North Hartsville Elementary School into a PreK-5th grade school for school uniformity, Kindergarten classrooms are needed. In addition, Guidance and Physical Education should be placed in permanent structures and removed from mobile units.

Option 1: (In association with an enclosed Corridor connecting Bldg 2 and 3, the following spaces should be added off of the walkway)

1. Add one 4K classroom
2. Add four 5K classrooms
3. Add a Guidance Suite
4. Add a Multipurpose PE Room with toilets
5. Add a Fine Arts Room with toilet