



*Excellence in
Teaching and Learning
for All*

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

Hartsville Area Schools - Building Evaluations

School Name: Carolina Elementary Observed By: Cannon/Carter
Principal: Ms. Donna Barrett
Grade Levels: 1st – 5th Grades
Site Size: Approximately 10 Acres
Student Population: 264 (Approximate Student Population)
Staff Size: 37 (Approximate Staff Size)

Campus Narrative and General Observations:

Carolina Elementary is located on a 10 acre site and houses students from the first through fifth grades. Its two main buildings were constructed in the 1950's. The site is relatively flat with little grade which creates drainage issues when rains occur.

Visitor parking is limited and traffic circulation for buses is poor. Parent drop-off and pickup seems to be adequate but drainage is poor and wet feet appear to be common

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, when students and staff move from building to building in inclement weather, they are subjected 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.

There are 5 mobile units/classrooms being used. Two of these mobile units are situated within 20' of a permanent structure which is a code violation.



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 Buses use the visitor parking areas for loading/unloading
Main Entrance				■	Visitor parking area is in need of repaving, curb and guttering in addition to storm drainage Because of parking and continuous canopies, the main entry is not easily discerned. School crests help with identifying the front entrance.
Exterior Doors				■	Some doors have been replaced. Others: lack energy efficiency; have hardware issues; have ADA; etc.
Interior Doors			■		ADA door clearances In most cases, doors have been replaced and meet fire rating requirements Hardware replacement and rekeying has occurred
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 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 It is probable that air quality does not meet ASHRAE requirements
Mold/Moisture					No evidence of mold was observed Painting in the buildings was occurring masking smells
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 MDF has unsecured access and unintentional damage can occur 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; among others
Roof Systems	■				Original built-up roofs have been replaced with metal retrofit roofing systems
Structure		■			Minor cracking of masonry is evident Seismic upgrades may be required
Appearance and Finishes					
Curb Appeal				■	Curb appeal is lacking
Grounds			■		Grounds at the time of observation were well kept 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
Ceilings			■		Ceilings are in average condition Communication wires are laying on ceiling systems
Walls		■			Painting to freshen the buildings was occurring at the time of observation
Flooring		■			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 are lacking in space The addition of a security lock is recommended
Health Room				■	Although the school nurse is a part time position, the space is small Observation of this space by other staff members is difficult due to location
Guidance				■	Guidance is located in the cafeteria building
General Classroom Status			■		With a student population of 264 and 10 classrooms the average number of students/classroom is 26. This is higher than other elementary schools in the District. Classrooms are typically about 700 sf Toilet facilities need to be brought to current ADA standards
Cafeteria/Kitchen			■		The size appears small even considering the school population Toilets require upgrades in space for ADA Additional toilets are needed to meet code Additional natural light is recommended
Media Center			■		Lighting was adequate Natural light is needed The space had a sterile feel with white VCT floors and ceilings and beige walls Size seemed adequate for the numbers of students served



Art Room			■		Natural light is lacking Outdoor areas for 2-D and 3-D art are suggested
Science Room		■			There is a Science Classroom which appears to function well for the student population.
Music Room				■	Music is taught in a Mobile Unit This teacher is part time
Physical Education Space				■	Is currently housed in Mobile Units The school lacks a multi-purpose/PE space
Stage				■	The stage is small even considering the school size
Records Vault				■	There does not appear to be a rated records vault
Other:					Should this facility remain in use, buildings should be connected 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	1000 sf	2500sf recommended Adding space for staff and waiting																												
Guidance	120sf near cafeteria	400 sf This will provide enough space for a Guidance Suite																												
Media Center	Adequate																													
Kitchen	Adequate																													
Cafeteria	Adequate																													
Classrooms	Size of classrooms is less than average	Increase classroom square footage Two classrooms per grade is inefficient																												
Classroom Breakdown	<table border="0"> <tr><td>1st Grade</td><td>2</td></tr> <tr><td>2nd Grade</td><td>2</td></tr> <tr><td>3rd Grade</td><td>2</td></tr> <tr><td>4th Grade</td><td>2</td></tr> <tr><td>5th Grade</td><td>2</td></tr> <tr><td>Computer Lab</td><td>1</td></tr> <tr><td>Science Lab</td><td>1</td></tr> <tr><td>PE Classroom</td><td>1 (Mobile Unit)</td></tr> <tr><td>Art Room</td><td>1</td></tr> <tr><td>Music</td><td>1 (Mobile Unit)</td></tr> <tr><td>Special Ed</td><td>2</td></tr> <tr><td>Speech</td><td>1 (Mobile Unit)</td></tr> <tr><td>Resource</td><td>3 (3 in Mobile Units)</td></tr> <tr><td>Total</td><td>21</td></tr> </table>	1 st Grade	2	2 nd Grade	2	3 rd Grade	2	4 th Grade	2	5 th Grade	2	Computer Lab	1	Science Lab	1	PE Classroom	1 (Mobile Unit)	Art Room	1	Music	1 (Mobile Unit)	Special Ed	2	Speech	1 (Mobile Unit)	Resource	3 (3 in Mobile Units)	Total	21	
1 st Grade	2																													
2 nd Grade	2																													
3 rd Grade	2																													
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Total	21																													
Gymnasium/P.E.		Space required																												
Music Room	Housed in Portable																													
Art Room	700 sf	1000 sf recommended																												
Science Rooms	700 sf	1000 sf recommended																												
Group Toilets		Renovations Required																												
Staff Workrooms		Space Needed																												
Staff Toilets		Additional Toilets Needed																												

Building 1: (1st and 2nd Grades)
 Year Const.: 1953
 Renovations: Various Years
 Square Footage: 9,000 Single Story
 Total: 9,000 9,000

Total Classrooms: 6 Instructional Spaces w/toilets
 1 Staff Toilets
 Total Occupancy: 4 classrooms x 25 = 100

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: Metal Retrofit
 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
 Office: 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: Corridors Not Rated 1 hr. req.
 Structural Steel: No Ratings Required
 Roof/Ceiling: No Ratings Required
 Fire Walls: Not Required
 Toilets:
 Toilet Counts: Appear to be adequate
 ADA Accessibility: Appear to be compliant

Building 2: (3rd, 4th and 5th Grades)

Year Const.: 1949
 Renovations: Various Years
 Square Footage: 11,400 Single Story
 Total: 11,400 11,400

Total Classrooms: 10 Instructional Spaces w/o toilets
 1 Set Group Toilets

Total Occupancy: 6 classrooms x 25 = 150

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: Metal Retrofit
 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
 Office: 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: Corridors Not Rated 1 hr. req.
 Structural Steel: No Ratings Required
 Roof/Ceiling: No Ratings Required
 Fire Walls: Not Required
 Toilets:
 Toilet Counts: Appear to be adequate
 ADA Accessibility: Appear to be compliant

Building 3:	(Media Center and Cafeteria)	
Year Const.:	1949	
Renovations:	Various Years	
Square Footage:	<u>7,300</u>	Single Story
Total:	7,300	7,300
Total Classrooms:	No Classrooms	
	1 Set Group Toilets	
Total Occupancy:	N/A	
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:	Metal Retrofit	
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	
Office:	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	Corridors Not Rated	1 hr. req.
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	Not Required	
Toilets:		
Toilet Counts	Appear to be adequate	
ADA Accessibility	Appear to be compliant	

Mobile Unit 1: (Physical Education)

Year Const.:

Renovations:

Square Footage: 720

Mobile Unit 2: (Teacher Resource)

Year Const.:

Renovations:

Square Footage: 720

Mobile Unit 3: (Speech)

Year Const.:

Renovations:

Square Footage: 720

Mobile Unit 4: (Parent Resource)

Year Const.:

Renovations:

Square Footage: 720

Mobile Unit 5: (Collaborative)

Year Const.:

Renovations:

Square Footage: 720

Total Campus Square Footage

27,700

Recommendations:

Option 1: Create a K-5th grade school

1. Add a Kindergarten wing with Related Arts
2. Enclose Corridors to buildings
3. Renovate classrooms
4. Rework and pave the parking/drop off areas

Option 2: Close this facility

1. Relocate students to a new elementary school located at the West Hartsville site

Option 3: Move students to Thornwell and occupy the three story building