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## **Darlington County School District**

Darlington, South Carolina

August 2, 2012

### **Darlington Area Schools - Building Evaluations**

**School Name:** Pate Elementary School    Observed By: Creed/Carter  
**Principal:** Mrs. Terry Martin  
**Grade Levels:** 4K – 2<sup>nd</sup>  
**Site Size:** Approximately 21 Acres  
**Student Population:** 435 (Approximate Student Population)  
**Staff Size:** 58 (Approximate Staff Size)

#### **Campus Overview and General Observations:**

Pate Elementary School sits on a 21 acre site which is relatively flat with a small retention pond near the kitchen staff parking area. The site is located near Hwy 401, access to the school occurs across the front off Indian Branch Road. Storm water drainage is poor. There is evidence of some clogged drains. The main building is typical of the designs associated with schools built in the 1950's. A couple of building were added later as needs arose and there are currently five occupied portables. Renovations have periodically occurred based on need and not through a planned process such as a master plan.

Access to the main entrance of the school is not easily identifiable. The original entrance to the school is still present, the name of the school is mounted on the wall adjacent to a pair of doors and storefront and sidewalks leading to the old entrance. However through signage and footprints painted on the sidewalk visitors are now guided to a new entrance on the side of the building, adjacent to the parent drop off. This entrance leads visitors by a resource room and health room prior to gaining visual access to the front office.

Unclearly marked entrances where the existing architecture of the building competes with newer signage creates confusion as well as security concerns for staff. Since the only visual access from the main office to the new entrance is via a window in the corridor, it would be easy for office staff to miss a visitor and for said visitor to gain access to the entire school without first checking in at the office. In addition, there are covered canopies connecting the two classroom buildings, gym and media center, as well as the portables; making it hard to secure the campus. Numerous doors must be left unlocked throughout the day for students and staff to circulate on the campus.

Campus buildings consist of a combination of construction types including: masonry load bearing and bar joists with low sloped roofs and pre-engineered metal building. The ages of the buildings dictate varying compliance to a variety of building codes creating many noncompliant conditions as it relates to current codes.

There is a small fenced in play ground for kindergarten students and a larger play area in the back of the school for the older children. The equipment on the larger playground is in need of replacement and although there appears to be some fencing along the back of the playground the entire play area is not secured by fencing.

The parent drive forms at the front of the school with drop off on the side of the school adjacent to the cafeteria area. The parent drive is confusing because there appears to be two entry points off of Indian Branch Road. The bus loops comes off of Indian Branch Road, as well, but on the opposite side of the school and students are dropped off at the back and enter through covered sidewalks into the main classroom building, kindergarten building or gym.

<b>FACILITIES OVERVIEW</b>					
SYSTEM	0 (adequate)	1 (mild need)	2 (strong need)	3 (critical need)	REMARKS
<b>Safety and Health</b>					
Site Security			■		The Campus is an open campus with numerous access points and no means of control.
Traffic Patterns			■		A new bus drop off canopy directing students to the cafeteria appears to be needed Drainage is poor Traffic patterns are awkward for parents and visitors
Main Entrance			■		Not easily recognizable Lack of entry lobby. Visitors enter on end of corridor with no sight lines to the office. New entrance competes with existing architecture of the building
Exterior Doors		■			Lack energy efficiency Have some hardware issues Have some ADA issues considering,



					clearances, pull pressure, and hardware
Interior Doors			■		ADA door clearances Most doors appear to have been recently replaced Hardware replacement is needed to meet ADA in the Music/Art/kindergarten as well as gym buildings. Panic hardware needs to be added to doors exiting media center.
Windows			■		Do not meet OSF egress requirements Are not energy efficient Operation is questionable on many windows. Permanent bookcases present in front of some windows impede easy emergency egress
Fire Alarm	■				Recently replaced Emergency lights require testing for foot candles and to ensure batteries are functioning
Fire Protection			■		As new buildings are added and buildings are renovated sprinklers will be required to be added.
Technology		■			Most instructional areas have had technology upgrades
HVAC			■		Air quality in PE Room is poor not enough HVAC
Mold/Moisture		■			There is a musty wet smell in PE Room
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. Insufficient outlets in classrooms
Lighting	■				Lighting levels appear to be adequate
Electrical Rooms	■				Appear to be adequate
Data/Server				■	Server currently housed out in the open in the computer room, should be secured within its own space.
ADA Compliance				■	Many noncompliant toilets Many room side door clearances are noncompliant
Code Compliance				■	Numerous violations including: life safety; energy efficiency; accessibility; and seismic to name a few.
Roof		■			With the exception of the PE Building, all roofs appear to have been recently improved with the inclusion of new standing seam fascias.
Structure	■				No apparent structural issues noted
<b>Appearance and Finishes</b>					
Curb Appeal		■			Typical of schools from the 50's. It is the opinion of the architect that the original front entry should be enhanced and re-used
Grounds			■		Average as compared to other schools in the District, Site drainage is an issue especially around the media center Reworking of the drives and access as parents approach campus is recommended
Exterior Envelope	■				Appears adequate

Ceilings			■		Water stains are evidence of roof leaks Communication wires are laying on ceiling systems
Walls			■		Painting to freshen the spaces is recommended
Flooring		■			Carpet is in poor condition and requires replacement VCT overall is in fair condition
Comments:					

**Building Information:**

**Building 1: Main Classroom/Cafeteria/Kitchen/Media**

Year Occupied: 1956  
 Renovations: None  
 First Floor: 38,920  
 Total: 38,920 38,920

Total Classrooms: 20 Classrooms  
 Total Occupancy: 20/classroom x 20 = 400

**Building Systems:**

Footings: Spread  
 Structure: Load Bearing Masonry w/bar joist  
 Exterior Walls: 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 light weight concrete deck  
 Finishes: Average. Upgrades suggested: Acoustic ceilings in corridors  
 Plumbing Systems: Copper Supply/Cast Iron Waste  
 Mechanical Systems: Free blow exterior hung Bard Units  
 Electrical System: 240/480V System  
 Fire Alarm: Recently upgraded  
 Emergency Lights: Ceiling battery backup

**2006 IBC Code Review:**

Utilities: City of Darlington  
 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 - Not Rated	(1 hr. req.)
Structural Steel	No Ratings	(1 hr. req.)
Roof/Ceiling	No Ratings	(1 hr. req.)
Fire Walls	None Required	
Toilets:		
Toilet Counts	Appear to be adequate	
ADA Accessibility	Noncompliant	

**Building 2: Multi-Purpose**

Year Const.:	1989	
Renovations:	None	
First Floor:	<u>3,600</u>	
Total:	3,600	3,600

Total Classrooms:	One Assembly area/One classroom/One storage
Total Occupancy:	****

**Building Systems:**

Footings:	Spread
Structure:	Pre-engineered
Exterior Walls:	Aluminum siding
Fenestration:	Fixed Storefront
Exterior Doors:	Hollow Metal Frames and Doors
Elevated Floor:	Slab on grade
Roof System:	Standing Seam Metal Roof
Finishes:	Poor. VCT on Floor has cracked due to crack in slab, wood panels and insulation on interior
Plumbing Systems	Copper Supply/Cast Iron Waste

Mechanical Systems:	
First Floor:	One mechanical unit for entire building and ceiling hung electrical unit. Fans open to outside for ventilation

Electrical System:	240/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	Wall mounted battery backup

**2006 IBC Code Review:**

Utilities	City of Darlington
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 - No Ratings	(1 hr. req.)
Structural Steel	No Ratings	(1 hr. req.)
Floor/Ceiling	No Ratings	(1 hr. req.)
Roof/Ceiling	No Ratings	(1 hr. req.)
Fire Walls	None Required	
<b>Toilets:</b>		
Toilet Counts	In adequate	
ADA Accessibility	Noncompliant	

**Building 3: Kindergarten/Art/Music**

Year Const.:	1980
Renovations:	None
First Floor:	<u>4,074</u>
Total:	4,074

4,074

Total Classrooms:	4 Classrooms
Total Occupancy:	4 Classrooms x 20 = 80

**Building Systems:**

Footings:	Spread
Structure:	Load Bearing Masonry w/ Bar Joist
Exterior Walls:	CMU/Brick Veneer
Fenestration:	Aluminum Double Hung
Exterior Doors:	Hollow Metal Frames and Doors
Roof System:	4-Ply Built-up Roof on light weight concrete deck
Finishes:	ACT Grid in corridor is yellowed. ACT in classrooms would help with acoustics
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
First Floor:	Free blow exterior hung Bard Unit
Electrical System:	240/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	Wall mounted battery backup



**2006 IBC Code Review:**

Utilities	City of Darlington
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	(1 hr. req.)
Structural Steel	No Ratings	(1 hr. req.)
Floor/Ceiling	No Ratings	(1 hr. req.)
Roof/Ceiling	No Ratings	(1 hr. req.)
Fire Walls	None Required	





### **Assessment of Major Spaces:**

Administration:	<p>Cramped spaces Receptionist has no visual to persons at pair of doors entering school until they have gained access to entire school. Office waiting is inadequate. Health Room is inadequate in size and does not have ADA toilet, a shower or hot water. The only place with working hot water in the school is in the kitchen area. Teacher workroom is small and cramped.</p>
Guidance Offices:	
Classrooms:	<p>Classroom numbers appear adequate for the student population. All classrooms need renovations especially in reference to casework which is mostly painted wood in nature and numerous pieces of casework have chipped or damaged plastic laminate countertops Toilet facilities in classroom buildings are inadequate and do not meet ADA standards. In addition many classrooms that would require individual toilets per current OSF standards do not have them Corridor floors are a combination on terrazzo and VCT with some walls containing glazed cru. Original classroom building has a combination of 2x4 ACT and exposed cementitious fiber deck</p>
Science Labs	Adequate but without teacher workstation
Media Center	<p>Low ceilings create a confined feel Panic Hardware is needed on doors to the exterior</p>
Cafeteria:	<p>Size appears to be adequate Of note is the lack of stage anywhere on campus Single serving line appears to work. Toilet facilities are inadequate and do not meet ADA standards Kitchen appears adequate and has quarry tile floor</p>
Physical Education:	<p>The existing multi-purpose/PE Room is inadequate. There is a crack in the floor slab which has telegraphed through the VCT</p>



- Toilet counts and fixtures are inadequate and do not meet ADA.  
HVAC is inadequate. Multi-purpose room and adjoining rooms served by single bard unit
- Arts Rooms:** Natural light is lacking  
Additional sinks are needed  
Outdoor areas for 2-D and 3-D art are suggested  
No Kiln
- Music Spaces:** The sizes of the rooms appear to be adequate.  
Need acoustical treatment on walls.
- Other:** Contiguous buildings to increase security  
Consideration of ambient noise when selecting mechanical systems  
Consideration of air quality when selecting mechanical systems  
Low flow toilets and plumbing fixtures  
LED lighting where applicable  
Switchgear found in courtyards – should be fenced off for student safety.
- General Observations:** Main Office is not easily discerned  
Audiology Booth not ADA Compliant  
Parent Drop-Off confusing  
Existing canopy could be continued from Media/Cafeteria are to the Bus Loop, allowing students direct access to Cafeteria in morning.  
In need of new playground equipment  
No Hot Water in school other than Kitchen

**Recommendations:**

There are several major factors when considering renovations to Pate Elementary School. The age of the main instructional building as it relates to size of classrooms as well as size or lack of support areas (teacher work rooms, staff toilets, compliant student toilets, guidance areas, science as well as computer areas, administrative and technology support areas) existing technology and electrical issues and security issues of the open campus plan. The lack of an adequate indoor multi-purpose room and stage are also to be considered. The elimination of the five older portables found on the campus and the inclusion of these teaching areas into a brick and mortar building should be included as a goal if the students are to remain on this campus.

### **Option 1: (Relocate Students to Brockington Campus)**

A viable option when considering the cost of a new multipurpose room, as well as the necessary cost to upgrade electrical and plumbing at the existing classroom buildings and the associated cost with multiple points of construction additions would be to close the Pate campus and move the student to Brockington. The geographical proximity to Brockington and the recent upgrades to Brockington make this an option that should be considered by the district. A new Special Ed and 4K – 5K wing along with a 1<sup>st</sup> and 2<sup>nd</sup> Grade wing could be added onto the Brockington Campus.

### **Option 2: (Renovate and Add - On)**

The following buildings should be renovated:

- Building 1:** A major renovations to electrical systems to include addition of outlets throughout the classrooms areas should occur. Renovation should also include toilet areas to insure that some ADA compliant fixtures are included. A new MDF room should be created to house computer systems. An interior corridor could be created and a two classroom addition constructed adjacent to media center where two portables are currently housed. This addition would house the students currently served by the two portables. The bus loop would need to be re-configured if the district wishes to maximize addition to include two more rooms.
- Building 2:** It is the opinion of the architect that the existing multi-purpose building is torn down and that a new multipurpose building be built to include a stage, this could occur directly off the back of the cafeteria building. If district wishes new classrooms could be constructed as part of this addition for future growth.
- Building 3:** A two classroom addition, where the 4k play area and read well portables are currently located could house a new art room with kiln and a new music room. This addition could also connect adjacent to existing classroom 7, creating support areas for the kindergarten fine arts building. The two rooms where Music and Art were once located could house two 5k rooms currently located in the cafeteria area.

It is our opinion that the following buildings should be abandoned and removed from the site:



**Building 2:** Considering the building shape, a new multi-purpose room with adequate toilets, storage and playing surface would serve the schools needs as well as the community.

**Phasing:** Due to the nature of the additions, with careful planning the construction could take place during the school year. However, renovations to building 1 will need to occur during the summers.