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

Hartsville Area Schools - Building Evaluations

School Name:	**Hartsville High School**	Observed By: Cannon/Carter
Principal:	Dr. Charlie Burry	
Grade Levels:	9^{th} – 12^{th}	
Site Size:	Approximately 40 Acres	
Student Population:	1,225 (Approximate Student Population)	
Staff Size:	125 (Approximate Staff Size)	

Campus Overview and General Observations:

Hartsville High School sits on a 40 acre site which is relatively flat. Access to the site occurs from Lewelleyn Avenue at the front and Washington Street at the rear. Storm water drainage is poor. The campus layout, typical of the designs associated with high schools built from the mid 1960's through the late 1970's, is based on a college campus design with multiple buildings connected by an array of covered walks and sidewalks. Campus buildings have been added as needs occur and were constructed from 1964 through 2011. 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 as it occurs through a neighborhood rather than a main vehicular artery. The Washington Street vantage is the more prevalent of the entrances.

Campus layouts, as exist at Hartsville High School, create security issues as doors to all buildings typically must remain unlocked to allow access to students and staff. Traversing the campus in inclement weather is also problematic as rain, cold and wind are not only an inconvenience to students and staff but also add additional safety hazards. This combined with poor drainage that exists across the site equates to wet feet and clothing, water in buildings, and slip/fall risks.

Campus buildings consist of a combination of construction types including: masonry load bearing walls and bar joists with low sloped roofs; steel frame at two story structures with low sloped roofs; masonry load bearing walls and steel beams with cementitious wood decks and low sloped roofs; and a masonry load bearing structure with steel trusses and a sloped metal roof. The ages of the buildings dictate varying compliance to a variety of building codes creating many noncompliant conditions as it relates to current codes.

Athletic facilities are located both on the campus proper and offsite. On site facilities include: PE/practice gymnasium; competition gymnasium; softball complex; football/soccer practice fields; and band practice/PE field. Offsite facilities include the competition football/soccer stadium and baseball field.

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				■	Pedestrians on campus are not protected from the elements Drainage is poor Traffic patterns are awkward for parents and visitors
Main Entrance			■		Not easily recognizable Entry lobby is: not adequate in size or stature; not friendly to visitors; and is uninviting;
Exterior Doors			■		Lack energy efficiency Have some hardware issues Have some ADA issues considering, clearances, pull pressure, and hardware
Interior Doors			■		ADA door clearances Non-rated doors in many instances Non-rated glass in many instances Hardware replacement is needed to meet ADA
Windows			■		Do not meet OSF egress requirements Are not energy efficient Operation is questionable on many windows
Fire Alarm	■				Recently replaced Emergency lights require testing for foot candles and to ensure batteries are functioning

Fire Protection		■			Competition and Practice gyms are sprinkled As new buildings are added and buildings are renovated sprinklers will be required to be added.
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 90.1standards 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 gymnasiums, all roofs are in need of replacement.
Structure		■			Minor cracking of masonry is evident Seismic upgrades may be required
Appearance and Finishes					
Curb Appeal			■		Dynamic curb appeal is lacking First impressions of the buildings from Lewelleyn Avenue is lacking The Washington Street vantage is clear and striking but lacks visitor access Careful pruning of existing trees and shrubs is needed
Grounds			■		While average as compared to other schools in the District, additional landscaping is needed Site drainage is an immediate need and should be addressed considering the entire site and downstream capacities Re-striping of staff and visitor parking areas is recommended Reworking of the drives and access on the Lewelleyn Avenue approach to campus 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 spaces is recommended
Flooring		■			Carpet is in poor condition and requires replacement VCT overall is in fair condition
Comments:					

Building Information:
Building 1: Two Story Classroom Building
Year Occupied: 1964

Renovations:	None	
First Floor:	11.435	
Second Floor:	11,435	
Total:	22,870	22,870

Total Classrooms: 10/Floor = 20 Classrooms
Total Occupancy: 32/classroom x 20 = 640





Building Systems:

Footings:	Spread
Structure:	Steel Frame
Exterior Walls:	CMU/Brick Veneer
Fenestration:	Aluminum Double Hung and fixed Storefront
Exterior Doors:	Hollow Metal Frames and Aluminum Storefront
Elevated Floor:	Composite Slab on Steel Frame
Roof System:	4-Ply Built-up Roof on light weight concrete deck
Finishes:	Average. Upgrades suggested: Floors QT Corridors/VCT Classrooms; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
First Floor:	Free blow exterior hung Bar Units
Second Floor:	Split heat pumps with closet units
Other:	PTAC Units
Electrical System:	240/480V System
Fire Alarm:	Recently upgraded
Emergency Lights:	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 - Not Rated	(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	
Toilets:		
Toilet Counts	Appear to be adequate	
ADA Accessibility	Noncompliant	

Building 2: Two Story Classroom Building

Year Const.: 1962

Renovations:	None	
First Floor:	11,435	
Second Floor:	11,435	
Total:	22,870	22,870

Total Classrooms: 10/Floor = 20 Classrooms
Total Occupancy: 32/classroom x 20 = 640

Building Systems:

Footings:	Spread
Structure:	Steel Frame
Exterior Walls:	CMU/Brick Veneer
Fenestration:	Aluminum Double Hung and fixed Storefront
Exterior Doors:	Hollow Metal Frames and Aluminum Storefront
Elevated Floor:	Composite Slab on Steel Frame
Roof System:	4-Ply Built-up Roof on light weight concrete deck
Finishes:	Average. Upgrades suggested: Floors QT Corridors/VCT Classrooms; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
First Floor:	Free blow exterior hung Bard Units
Second Floor:	Split heat pumps with closet units
Other:	PTAC Units
Electrical System:	240/480V 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 - 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	
Toilets:		
Toilet Counts	Appear to be adequate	
ADA Accessibility	Noncompliant	

Building 3: Two Story Classroom building

Year Const.:	1972	
Renovations:	None	
First Floor:	12,350	
Second Floor:	12,350	
Total:	24,700	24,700

Total Classrooms: 8/Floor = 16 Classrooms/Science Labs
Total Occupancy: 32/classroom x 16 = 512

Building Systems:

Footings:	Spread
Structure:	Steel Frame
Exterior Walls:	CMU/Brick Veneer
Fenestration:	Aluminum Double Hung and fixed Storefront
Exterior Doors:	Hollow Metal Frames and Aluminum Storefront
Elevated Floor:	Composite Slab on Steel Frame
Roof System:	4-Ply Built-up Roof on light weight concrete deck
Finishes:	Average. Upgrades suggested: Floors QT Corridors/VCT Classrooms; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
First Floor:	Free blow exterior hung Bard Units
Second Floor:	Packaged Roof Mounted Heat Pumps
Other:	PTAC Units
Electrical System:	240/480V 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 - 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	
Toilets:		
Toilet Counts	Appear to be adequate	
ADA Accessibility	Noncompliant	

Building 4: (Science Building)

Year Const.:	1993	
Renovations:	None	
First Floor:	13,300	
Total:	13,300	13,300

Total Classrooms:	10 Classrooms/Science Labs
Total Occupancy:	32/classroom x 10 = 320

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	Copper Supply/Cast Iron Waste
Mechanical Systems:	
Classrooms:	Packaged Roof Mounted Heat Pumps
Electrical System:	277/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	





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	None Required
Toilets:	
Toilet Counts	Appear to be adequate
ADA Accessibility	Appear to be compliant



Building 5: (1970 Science Building and Offices)

Year Const.:	1970	
Renovations:	None	
First Floor:	10,600	
Total:	10,600	10,600

Total Classrooms:	4 Classrooms/Science Labs
Total Occupancy:	32/classroom x 4 = 128

Building Systems:

Footings:	Spread
Structure:	Sloped Steel Beams on Load Bearing Masonry
Exterior Walls:	Load Bearing CMU/Brick Veneer
Fenestration:	Aluminum Double Hung Windows and fixed Storefront
Exterior Doors:	Hollow Metal Frames and Aluminum Storefront
Roof System:	4-Ply Built-up Roof on cementitious wood fiber deck
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 and Split Heat Pumps.
Electrical System:	277/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	







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	None Required
Toilets:	
Toilet Counts	Appear to be adequate
ADA Accessibility	Noncompliant

Building 6: (Main Office/Media Center)

Year Const.:	1972	
Renovations:	None	
First Floor:	10,600	
Total:	10,600	10,600

Total Classrooms:	NA
Total Occupancy:	Media Center 90/Office 20









Building Systems:

Footings:	Spread
Structure:	Sloped Steel Beams on Load Bearing Masonry
Exterior Walls:	Load Bearing CMU/Brick Veneer
Fenestration:	Aluminum Double Hung Windows and fixed Storefront
Exterior Doors:	Hollow Metal Frames and Aluminum Storefront
Roof System:	4-Ply Built-up Roof on cementitious wood fiber deck
Finishes:	Average to Good. Floors-VCT Corridors with Carpet at Offices and Media Center; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
Classrooms:	Wall Hung Bard Units and Split Heat Pumps.
Electrical System:	277/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	

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	No Ratings	(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	Noncompliant	

Building 7: (Applied Technology Center)

Year Const.:	1967	
Renovations:	None	
First Floor:	13,200	
Total:	13,200	13,200









Total Classrooms:	8 Classrooms/Labs
Total Occupancy:	32/classroom x 8 = 256

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:	Need attention: 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
Offices:	Packaged Roof Mounted Heat Pumps
Electrical System:	277/480V System
Fire Alarm:	Recently upgraded
Emergency Lighting:	

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	No Ratings	(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	Noncompliant	

Building 8: (Music Building)

Year Const.:	1970	
Renovations:	None	
First Floor:	6,000	
Total:	6,000	6,000

Total Classrooms:	3 Classrooms/Studios
Total Occupancy:	32/classroom x 3 = 96


Dead End Corridor





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:	Need attention: 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
Studios:	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	No Ratings	(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	Appears to be ADA Compliant	

Building 9: (Original Gymnasium)

Year Const.:	1967	
Renovations:	(Partial) 2011	
First Floor:	27,500	
Total:	27,500	27,500

Total Classrooms:	N/A
Total Occupancy:	N/A

Building Systems:

Footings:	Spread
Structure:	Steel Bar Joist, Beams, and Long Span 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 Hollow Metal Doors
Roof System:	Low Sloped Metal at gym and 4-Ply Built-up Roof on metal deck at locker rooms
Finishes:	Need attention: Floors-VCT Corridors and Classrooms; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
Gym:	Gas Heater/No Air-conditioning
Locker Rooms:	Gas Heater/No Air-conditioning
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 Sprinkled	
Area Allowed	9,500 sf	
Maximum Stories	Two (2) Stories	
Occupant Load		
Fire Rated Assemblies:		
Fire Barriers	No Ratings	(1 hr. req.)
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	3 Hour	
Toilets:		
Toilet Counts	New Toilets are Compliant	
ADA Accessibility	New Toilets are Compliant	

Building 9A: (New Gymnasium)

Year Const.:	2011	
Renovations:	None	
First Floor:	35,300	
Total:	35,300	35,300

Total Classrooms:	N/A
Total Occupancy:	N/A

Building Systems:

Footings:	Spread
Structure:	Steel Bar Joist, Beams, and Long Span 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 Hollow Metal Doors
Roof Systems:	
Gymnasium:	Sloped Metal
Locker Rooms/Lobby:	4-Ply Built-up Roof on metal deck
Finishes:	New
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
Gym:	Packaged Air Units
Locker Rooms/Lobby:	Packed Roof Units
Electrical System:	800 amp 480/277 3 Phase System
Fire Alarm:	New 2011
Emergency Lighting:	Wall Mounted Battery Backup

2006 IBC Code Review:

Utilities	City of Hartsville
Occupancy	Group A-4
Construction Type	II B Unprotected Sprinkled
Area Allowed	9,500 sf
Maximum Stories	Two (2) Stories
Occupant Load	
Fire Rated Assemblies:	
Fire Barriers	1 Hour
Structural Steel	No Ratings Required
Roof/Ceiling	No Ratings Required
Fire Walls	3 Hour
Toilets:	
Toilet Counts	Meet current Code
ADA Accessibility	Compliant









Building 10:	Cafeteria	
Year Const.:	1975	
Renovations:	None	
First Floor:	17,000	
Total:	17,000	17,000

Total Classrooms:	N/A
Total Occupancy:	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:	Need attention: Floors-Terrazzo; Acoustic ceilings; and Painted CMU walls
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
All Areas:	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	No Ratings	(1 hr. req.)
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	None Required	
Toilets:		
Toilet Counts	Additional Toilets Needed	
ADA Accessibility	Noncompliant	









Building 11: Weight Room (Old Voc)

Year Const.:	1973	
Renovations:	None	
First Floor:	12,300	
Total:	12,300	12,300

Total Classrooms:	N/A
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:	4-Ply Built-up Roof on metal deck
Finishes:	Need attention: 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
Bay Areas:	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	No Ratings	(1 hr. and 2 hr. req.)
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	None Required	
Toilets:		
Toilet Counts	Additional Toilets Needed	
ADA Accessibility	Noncompliant	

Building 12:	Old Elec. Bldg.	
Year Const.:	1973	
Renovations:	None	
First Floor:	4,600	
Total:	4,600	4,600

Total Classrooms: 5
Total Occupancy: 32/Classroom x 5 = 160

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:	Need attention: Floors-VCT Corridors and Classrooms; Acoustic ceilings; and Painted CMU wall
Plumbing Systems	Copper Supply/Cast Iron Waste
Mechanical Systems:	
Classrooms:	Wall Hung Bard Units
Bay Areas:	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	No Ratings	(1 hr. and 2 hr. req.)
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	None Required	
Toilets:		
Toilet Counts	Additional Toilets Needed	
ADA Accessibility	Noncompliant	

Building 13:	Art Building	
Year Const.:	1972	
Renovations:	None	
First Floor:	3,800	
Total:	3,800	3,800

Total Classrooms:	3
Total Occupancy:	32/Classroom x 3 = 96



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:	Need attention: 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	No Ratings	(1 hr. req.)
Structural Steel	No Ratings Required	
Roof/Ceiling	No Ratings Required	
Fire Walls	None Required	
Toilets:		
Toilet Counts	Additional Toilets Needed	
ADA Accessibility	Noncompliant	

Mobile Unit 1:	(Not Used)	
Year Const.:		
Renovations:		
First Floor:	1,400	
Total:		
Mobile Unit 2:	(Not Used)	
Year Const.:		
Renovations:		
First Floor:	1,400	
Total:		
Total Campus Square Footage		224,140

Assessment of Major Spaces:

Administration:	Cramped spaces Entry has no space for display Office waiting is inadequate for the school size
Guidance Offices:	The guidance areas appear to be small Space lacks conference areas for individual and group meetings
Classrooms:	Classroom numbers appear adequate for the student population. All classrooms need renovations Toilet facilities in classroom buildings are inadequate and do not meet ADA standards
Science Labs	There seems to be many science labs in buildings two, four, and five. A District assessment is recommended to determine if consolidation should be considered.
Media Center:	Lack of natural light Low ceilings create a confined feel The space design has blind spots which can create security issues
Cafeteria:	The size is not adequate for the size school Serving line while they work, lack flow and variety seen on many high school campuses in the state Toilet facilities are inadequate and do not meet ADA standards

Physical Education:	The new Gymnasium appears to be functioning well and meeting school needs The existing gym is in need of renovations and lacks air-conditioning The existing locker rooms are in need of renovations or replacement. ADA is not being met. The weight room should be upgraded
Arts Rooms:	Replacement recommended Natural light is lacking Additional sinks are needed Outdoor areas for 2-D and 3-D art are suggested
Music Spaces:	The sizes of the rooms do not appear to be adequate. Toilet facilities are inadequate and do not meet ADA standards A dead end corridor situation currently exists
Other:	Contiguous buildings to increase security Collaborative areas for Students and Instructors Introduction of natural light into learning environments 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 Theater for Performing Arts Improved athletic locker rooms, training rooms and classrooms Auxiliary Gym renovations to include air-conditioning Removal of buildings no longer serving a useful function
General Observations:	Lacking dynamic presence Main Office is not easily discerned

Recommendations:

There are several major factors when considering renovations to Hartsville High School. These include: safety and security; rain water drainage; electrical/technology relocation from canopy structures; and consideration of the competitive edge a 21st Century Learning Environment will provide to the students' of Darlington County. More specifically, most buildings are in immediate need of building envelope renovations which will include: roof replacement; window replacement; exterior door system replacement; removal and reinstallation of caulking systems; in some cases masonry tuck pointing; and covered walk replacement. With the exception of the New Gymnasium, Building 9A, all buildings require varying degrees of renovations or complete replacement.

Option 1: (Renovate and Rebuild)

The following buildings should be renovated:

Building 1: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 2: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 3: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 4: Minor renovations to this building should sustain it for 7 to 10 years. Should it be determined that Science Classrooms need consolidating, this may change the extent of renovations from minor to major.

Building 9A: Being the newest building on campus renovations should not be required for 7 to 10 years. At that time, finishes will need to be freshened by painting and possibly ceiling replacement.

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

Building 5: Considering the building shape, it does not allow efficient flow. Also due to design, the building systems are largely exposed creating a non-attractive learning environment.

Building 6: See comments Building 5.

Building 7: In addition to this building not fitting into the master plan, extensive renovations are required.

Building 8: Rainwater issues, code compliance issues and lack of available space plague this building, renovations are not recommended and building removal is required.

Building 9: While the gymnasium can be renovated, the locker rooms and support areas are inadequate considering today's standards. Therefore it is the recommendation of this report that the gymnasium is renovated and new locker facilities added in addition to: physical education classrooms; a new weight room; a cardio/aerobics room; training rooms; offices; and storage areas. A new lobby for this building with toilets is also recommended.

Building 10: This building at its present location is not conducive to campus flow and therefore requires removal.

Building 11: Due to location and cost of renovation, removal is recommended.

Building 12: Due to location and cost of renovation, removal is recommended.

Building 13: Due to location and cost of renovation, removal is recommended.

Phasing: Phasing of the renovations, building demolitions, and building replacement will occur over a minimum of six (6) phases and will take a minimum of 7 years. This process can be slowly occurring over as many as 20 years but over that timeline the effectiveness of the phasing will be lost and therefore a plan between 7 to 12 years is recommended.

Option 2: (Renovate and Additions)

Although not recommended, additions and renovations can occur which will address security and other campus issues. This option will require the following building renovations and new additions:

Building 1: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 2: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 3: Major renovations including replacement of brick veneer to increase fenestration and provide a new look to the structure. New brick colors will also tie the campus together.

Building 4: Minor renovations to this building should sustain it for 7 to 10 years. Should it be determined that Science Classrooms need consolidating, this may change the extent of renovations from minor to major.

Building 5: Major renovations would occur including increasing fenestration allowing natural light into interior spaces. Interior walls would be removed to allow for revised classroom configurations, toilets would be added meeting code, mechanical systems would be replaced and the building would be sprinkled.

Building 6: Major renovations would occur including increasing fenestration allowing natural light into interior spaces. Interior walls would be removed to allow for revised classroom configurations, toilets would be added meeting code, mechanical systems would be replaced and the building would be sprinkled.

Building 7: This building would be removed and the space would be landscaped and become campus green area with wireless internet overlay.

Building 8: This building would ultimately be removed and become a part of the Band Practice Field.

Building 9: While the gymnasium can be renovated, the locker rooms and support areas are inadequate considering today's standards. Therefore, the gymnasium would be renovated. In the future, new locker facilities would be added in addition to physical education classrooms, a new weight room, a cardio/aerobics room, training rooms, offices and storage areas. The addition of a new lobby for this building with toilets is also recommended.

Building 9A: Being the newest building on campus renovations should not be required for 7 to 10 years. At that time, finishes will need to be freshened by painting and possibly ceiling replacement.

Building 10: This building would require major renovations and will be repurposed to house the Media Center.

Option 3: (Relocate to a New School Site)

While the architect's opinion that a revitalization of Hartsville High School as noted in Option 1 can occur on the existing site, it should also be considered that of the 280,000 sq. ft. needed to sustain the student capacity at the current high school only 35,000 sq. ft. is new space. The remaining 105,000 sq. ft. of the existing campus will be old renovated space. A new facility on a new site offers the opportunity to address curb appeal, traffic patterns and locate all athletic venues on a single site, a new school as an option must be considered.