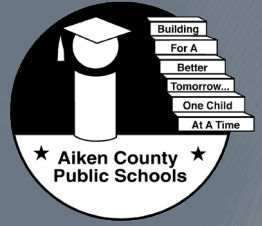




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# PHASE TWO ADDITION NORTH AUGUSTA HIGH SCHOOL



AIKEN COUNTY PUBLIC SCHOOLS  
SCHEMATIC DESIGN SUBMITTAL

# NORTH AUGUSTA HIGH SCHOOL

## SCHEMATIC DESIGN SUBMITTAL

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OCTOBER 2015



# NORTH AUGUSTA HIGH SCHOOL

## DESIGN STATEMENT

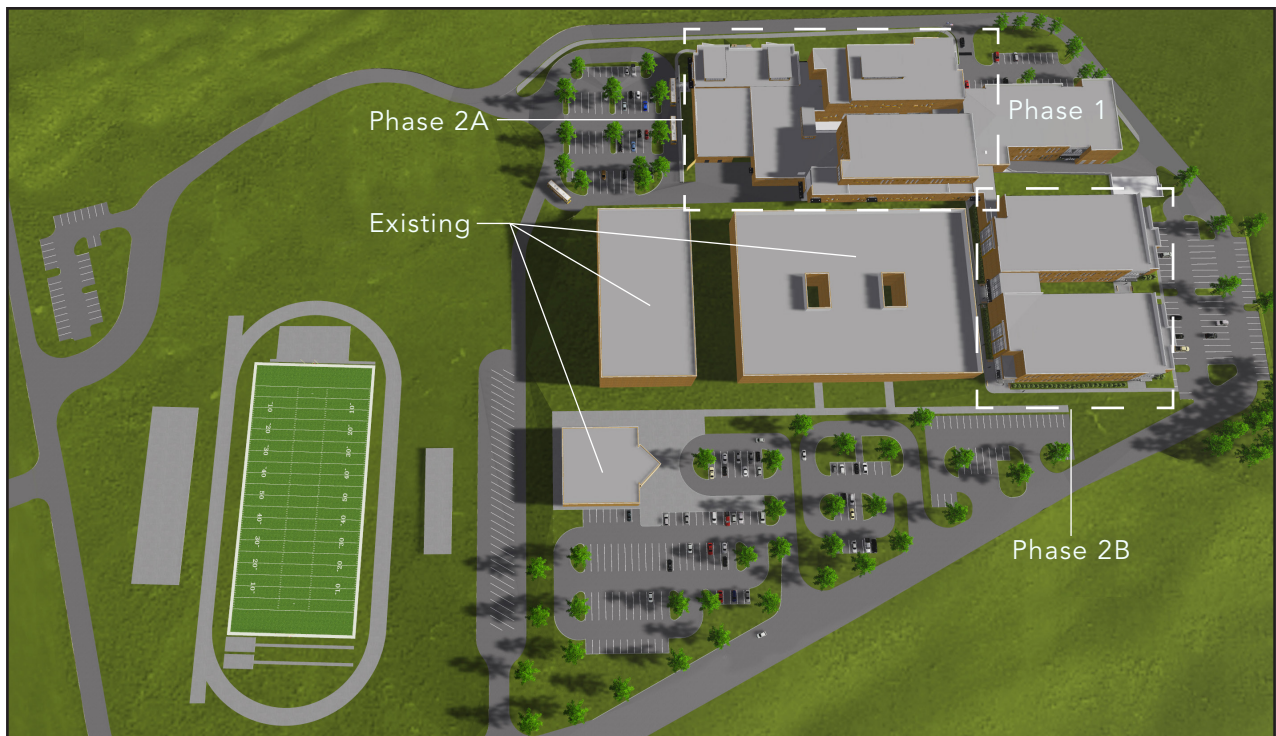
The renovations and additions to North Augusta High School were originally planned as an eight phase masterplan of the campus. During the construction of the phase one Science and Technology wing, the passage of a sales tax referendum allowed for several of the original phases to be combined and constructed in a two phase project that will demolish 48,000 square feet of the original buildings and replace them with approximately 200,000 square feet of new construction. These additions will include the kitchen/cafeteria, media center, administration area, main classroom buildings, freshman area and exploratory classrooms. Future phases may include the addition of a new auxiliary gym and locker rooms with renovations to the existing gymnasium and locker rooms, and the addition of new athletic fields.



# NORTH AUGUSTA HIGH SCHOOL

## SITE PLAN

The site for the project is the existing North Augusta High School site. The new buildings will be adjacent to the Science and Technology Building that was completed in May 2015. Phase 2A is located to the west of the Science and Technology Building and includes the cafeteria, administration area, freshman wing and media center. Phase 2B is located to the south of the Science and Technology Building and consists of the main classroom wings for the High School. The bus loop will be located on the western side of the site, adjacent to the cafeteria. The existing student and staff parking areas will be rearranged and additional parking will be added to the east of Phase 2B. With the completion of this project, the orientation of the building will be reversed so that the additions will become the front of the school.



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>ADMINISTRATION</b>			
Lobby	1	3,367	3,367
Reception	1	400	400
Public Women's Toilet	1	191	191
Public Men's Toilet	1	191	191
Conference	1	239	239
Supply	1	106	106
Vault	1	188	188
Area Bookkeeper	1	130	130
Secretary	1	126	126
Assistant Principal	1	148	148
Bookkeeper	1	130	130
Storage	1	155	155
Principal	1	191	191
Toilet	1	69	69
Closet	1	11	11
Secretary	1	121	121
Workroom/Mailroom	1	272	272
Attendance	1	115	115
SRO	1	117	117
Staff Men's Toilet	1	58	58
Staff Women's Toilet	1	66	66
<b>Subtotal Administration</b>			<b>6,391</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>GUIDANCE</b>			
Guidance Counselor's Office	4	117	468
Record's Vault	1	265	265
Career Counselor's Office	2	123	246
Conference	1	276	276
Registrar's Office	1	137	137
Testing Storage	1	111	111
Workroom	1	202	202
Staff Women's Toilet	1	59	59
Staff Men's Toilet	1	59	59
<b>Subtotal Guidance</b>			<b>1,823</b>

<b>HEALTH</b>			
Health Waiting Room	1	229	229
Cots Area	1	296	296
Nurse's Office	1	114	114
Nurse's Storage	1	28	28
Toilet	1	119	119
<b>Subtotal Health</b>			<b>786</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>FOOD SERVICE</b>			
Cafeteria	1	9,207	9,207
Serving Area	1	1,689	1,689
Kitchen	1	2,812	2,812
Office	1	134	134
Locker Room	1	161	161
Toilet	1	83	83
School Store	1	474	474
Chair Storage	1	138	138
JROTC Canteen	1	119	119
Family Toilet	1	72	72
Girl's Toilet	1	403	403
Boy's Toilet	1	414	414
<b>Subtotal Food Service</b>			<b>15,706</b>

<b>CULINARY ARTS</b>			
Culinary Lab	1	3,020	3,020
Boy's Dressing Room	1	156	156
Girl's Dressing Room	1	156	156
Culinary Office	1	106	106
Dining Room	1	742	742
Culinary Classroom	1	803	803
Laundry	1	63	63
Bakery	1	295	295
<b>Subtotal Culinary Arts</b>			<b>5,341</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>EXPLORATORY LEARNING</b>			
Art Classroom	2	1,622	3,244
Office	2	130	130
Storage	2	200	400
Digital Photo	1	165	165
Kiln	1	126	126
JROTC Classroom	1	1,793	1,793
Office	2	130	260
JROTC Large Storage	1	535	535
JROTC Small Storage	1	154	154
Armory	1	184	184
Robotics Lab	1	1,028	1,028
Storage	1	154	154
Mechanical Drawing Classroom	1	1,202	1,202
Office	1	120	120
Storage	1	122	122
<b>Subtotal Exploratory Learning</b>			<b>9,617</b>





# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>MEDIA CENTER</b>			
Reading Room	1	6,451	6,451
Conference A	1	288	288
Conference B	1	373	373
Stacks	1	3,096	3,096
Media Room	1	252	252
Storage	1	117	117
Audio/Visual Room	1	108	108
MDF/ Server Room	1	119	119
Offices	3	124	372
Workroom	1	215	215
Computer Lab	1	915	915
<b>Subtotal Media Center</b>			<b>12,306</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>FRESHMAN AREA</b>			
Assistant Principal	1	152	152
Book Storage	1	313	313
Freshman English Classroom	3	791	2,373
Freshman Math Classroom	3	791	2,373
Freshman Social Studies Classroom	3	791	2,373
Freshman Science Classroom	4	1,278	5,112
Freshman Science Lab	2	1,344	2,688
Prep Lab	2	225	450
Chemical Storage	1	69	69
Boy's Toilet	2	238	476
Girl's Toilet	2	233	466
Teacher Workroom	2	224	448
Men's Toilet	2	63	126
Women's Toilet	2	63	126
Storage	1	123	123
Small Conference Room	1	154	154
Resource Classroom	1	450	900
Storage	1	35	35
<b>Subtotal Freshman Area</b>			<b>18,757</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>MATH CLASSROOMS</b>			
Self Contained Classroom	1	799	799 SF
Toilet	1	93	93
Math Classroom	13	791	10,238
Nurse's Waiting Room	1	90	90
Nurse's Office	1	127	127
Nurse's Storage	1	60	60
Toilet	1	122	122
Book Storage	1	345	345
Small Conference Room	1	142	142
Assistant Principal's Waiting Room	1	84	84
Assistant Principal's Office	1	134	134
Teacher's Workroom	1	224	224
Men's Toilet	1	62	62
Women's Toilet	1	63	63
Storage	1	136	136
Boy's Toilet	1	319	319
Girl's Toilet	1	331	331
<b>Subtotal Math Classrooms</b>			<b>12,570</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>FOREIGN LANGUAGE CLASSROOMS</b>			
In School Suspension	1	788	788
Study Proctor Classroom	1	791	791
Undesignated Classroom	5	791	3,955
Foreign Language Classroom	7	791	5,537
Resource Classroom	2	392	784
Assistant Principal's Waiting	1	88	88
Assistant Principal's Office	1	125	125
Small Conference Room	1	142	142
Teacher's Workroom	1	224	224
Men's Toilet	1	63	63
Women's Toilet	1	63	63
Storage	1	136	136
Boy's Toilet	1	319	319
Girl's Toilet	1	332	332
<b>Subtotal Foreign Language Classrooms</b>			<b>13,347</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>ENGLISH CLASSROOMS</b>			
Self Contained Classroom	1	789	789
Toilet	1	93	93
English Classroom	14	791	11,074
Attendance Office	1	143	143
Small Conference Room	1	138	138
Teacher's Workroom	1	224	224
Men's Toilet	1	62	62
Women's Toilet	1	63	63
Storage	1	136	136
Boy's Toilet	1	319	319
Girl's Toilet	1	331	331
<b>Subtotal English Classrooms</b>			<b>13,372</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

Room Name	Number of Spaces	Net Area (SF)	Total Area (SF)
<b>SOCIAL STUDIES CLASSROOMS</b>			
Social Studies Classroom	12	791	9,492
Undesignated Classroom	3	791	2,373
Small Conference Room	2	110	220
Teacher's Workroom	1	224	224
Men's Toilet	1	63	63
Women's Toilet	1	63	63
Storage	1	131	131
Boy's Toilet	1	319	319
Girl's Toilet	1	331	331
<b>Subtotal Social Studies Classrooms</b>			<b>13,216</b>

<b>CUSTODIAL</b>			
Custodial Office	1	134	134
Kitchen Custodial Closet	1	114	114
Kitchen Custodial Storage	1	200	200
Administrative Custodial Storage	1	50	50
Cafeteria Custodial Storage	1	69	69
Classroom Wing Custodial Storage	5	28	140
Classroom Wing Custodial Closet	1	99	99
<b>Subtotal Custodial</b>			<b>806</b>



# NORTH AUGUSTA HIGH SCHOOL

## BUILDING PROGRAM

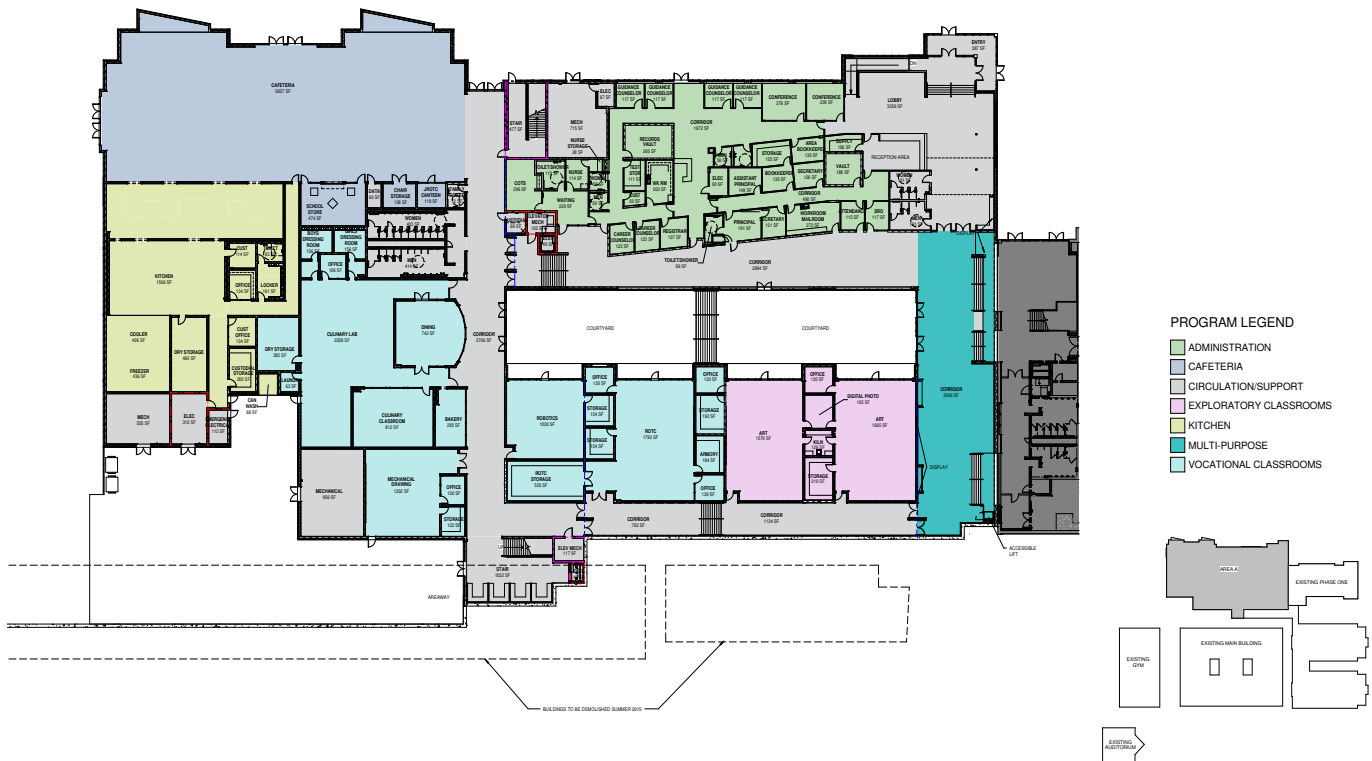
Room Name	Total Area (SF)
<b>Administration</b>	<b>6,391</b>
<b>Guidance</b>	<b>1,823</b>
<b>Health</b>	<b>786</b>
<b>Food Service</b>	<b>15,706</b>
<b>Culinary Arts</b>	<b>5,341</b>
<b>Exploratory Learning</b>	<b>9,617</b>
<b>Media Center</b>	<b>12,306</b>
<b>Freshman Area</b>	<b>18,757</b>
<b>Math Classrooms</b>	<b>12,570</b>
<b>English Classrooms</b>	<b>13,372</b>
<b>Foreign Language Classrooms</b>	<b>13,347</b>
<b>Social Studies Classrooms</b>	<b>13,216</b>
<b>Custodial</b>	<b>806</b>
<b>Total Net Square Footage</b>	<b>124,038</b>
<b>Approximate Net to Gross Area</b>	<b>105,379</b>
<b>Total Approximate Gross Square Footage</b>	<b>229,417</b>



# NORTH AUGUSTA HIGH SCHOOL

## GROUND FLOOR PLAN - PHASE 2A

The ground floor of Phase 2A, located to the west of the new Science and Technology Building, includes the cafeteria, kitchen spaces, administration areas and exploratory learning classrooms. The exploratory learning classrooms include a full service culinary arts laboratory with kitchen, dining area and a separate classroom. Other exploratory classrooms include a mechanical drawing classroom, a robotics laboratory, a JROTC classroom, and two art classrooms. The JROTC classroom has been designed to be a flexible learning environment. The room can be converted to a practice rifle range. The JROTC area also includes the armory and large storage areas. The two art classrooms are joined by a shared kiln room and a digital art lab with ample storage for both classes.





# NORTH AUGUSTA HIGH SCHOOL

## FIRST FLOOR PLAN - PHASE 2A

The first floor of Phase 2A includes the media center and the general curriculum classrooms for the freshman wing. The media center will contain 16,500 volumes. The vast space is divided into seating areas and stack areas. There are two conference rooms and a computer lab in the media center. The supporting spaces of the media center line the outside wall to the courtyard and include a workroom, media production room, staff offices and audio/visual storage. The main classrooms for the freshman area are oriented so that they line the perimeter of the building allowing the supporting spaces to be placed in the center. The freshman wing is enclosed by an exterior corridor that allows students to pass from the ground floor to the main classroom wings without entering the freshman space.



# NORTH AUGUSTA HIGH SCHOOL

## FIRST FLOOR PLAN - PHASE 2B

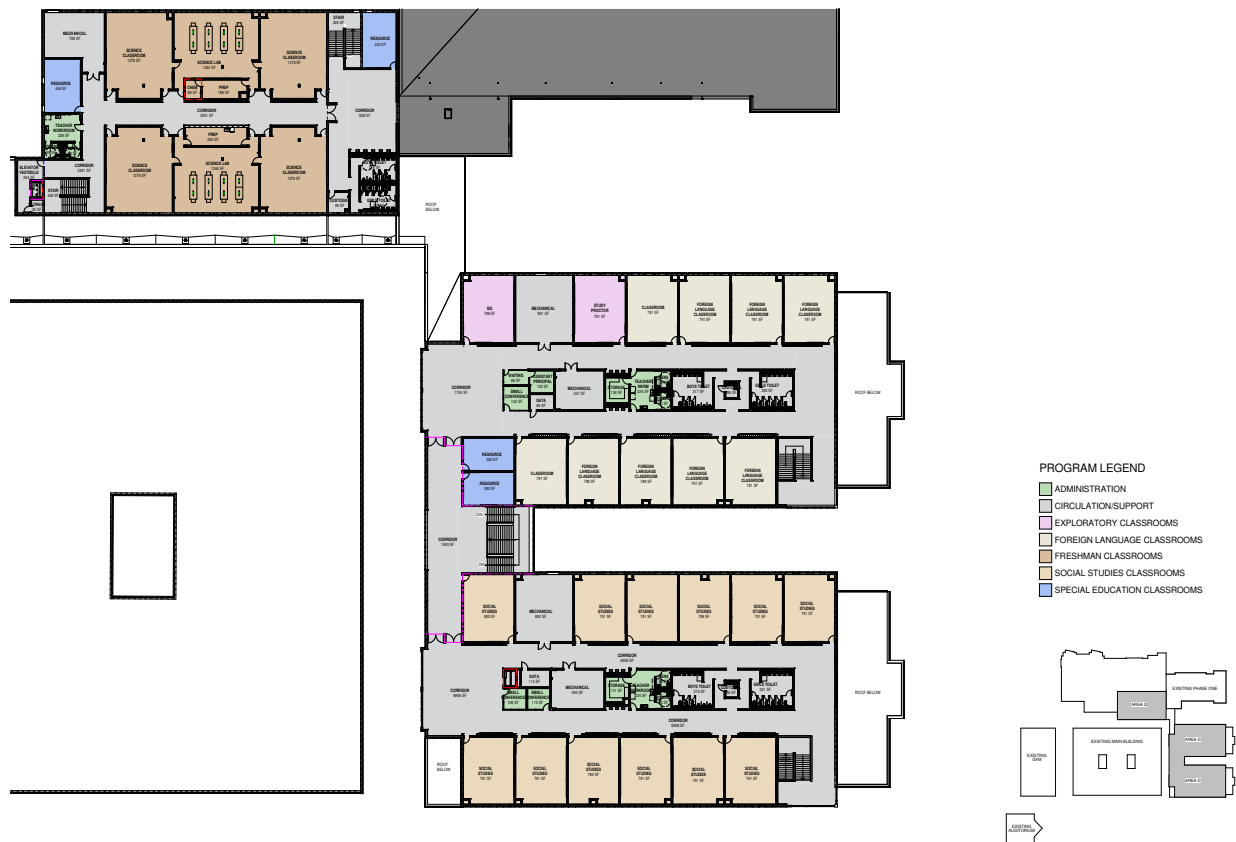
The first floor of Phase 2B includes the math and english classrooms for grades 10-12. These spaces are configured in such a way that the supporting areas such as the teacher's workrooms and collaborative learning spaces are located in the center of the building between the corridors with the classrooms located at the exterior wall. The two classroom wings are separated by a monumental stair that has curtainwall on either side, allowing natural sunlight into the space.



# NORTH AUGUSTA HIGH SCHOOL

## SECOND FLOOR PLAN - PHASE 2A & 2B

The second floor of Phase 2A is the top floor of the freshman wing. This floor houses the science laboratories and classrooms for the freshman students. The second floor of Phase 2B includes the foreign language and social studies classrooms for grades 10-12. Arranged in the same fashion as the first floor of the main classroom wings, all classrooms are on the perimeter of the building with the supporting spaces in the center of the building between the corridors.



# NORTH AUGUSTA HIGH SCHOOL

## ELEVATIONS

The majority of the exterior of the new buildings will be brick to match the new Science and Technology Building. The overall design incorporates several different materials to bring different accents and interest to the facades. The administrative building is the focal point, with tall glass curtainwall, black accent brick and metal panels. The administrative area is separated by an angled canopy that matches the Science and Technology Building. Above this canopy, the material changes to metal panels to differentiate the change of space. The design also utilizes the repetitive tile blocks to match the Science and Technology Building. This random pattern brings interest to the design and at the same time, connects the new construction to the adjacent building. The cafeteria incorporates the same features relating the new buildings to the administrative building. The metal panels accentuate the main dining areas, while the glass curtainwall brings in natural light to the space. The exterior of the classroom wing is similar to the new Science and Technology Building with similar window patterns and accent tile blocks. There are some areas with a random window patterns, adding interest to the overall design.



# NORTH AUGUSTA HIGH SCHOOL

## ELEVATIONS



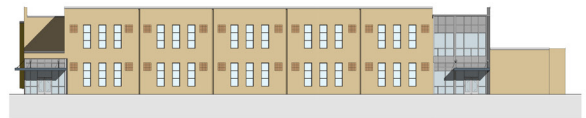
Overall North Elevation



Overall East Elevation



Main Classroom Wing West Elevation



Main Classroom Wing South Elevation



Courtyard North Elevation



Courtyard South Elevation



# NORTH AUGUSTA HIGH SCHOOL

## THREE DIMENSIONAL IMAGES



Student Entry



Main Classroom Wing



View Looking East



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Walls

The majority of the exterior walls will be brick to match the new Science and Technology Building. The administration building also has a black accent brick at the main entrance. In addition, there are areas clad with metal panels that bring a different texture to the exterior. Interior walls will be a combination of concrete masonry units and metal studs with gypsum board in the administration area.

### Wall Finishes

Interior walls will be painted concrete masonry units with painted gypsum board in the administrative areas. There will be selected areas with accents applied to the walls to differentiate the multipurpose and collaborative learning spaces.

### Floor Finishes

All classrooms will be vinyl composition tile. The administration area and media center will be primarily carpeted with some vinyl composition tile. Circulation areas will be vinyl composition tile with terrazzo in the main lobby.

### Ceilings Finishes

Acoustical tile ceilings will be installed throughout the building along with some gypsum board ceilings in accented areas. Much of the circulation areas will have painted exposed structure with exposed ductwork.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Accessories and Specialties

Markerboards and bulletin boards will be installed throughout the building as appropriate. ADA compliant signage will also be included.

### Casework

High impact plastic laminate casework and cabinets will be installed throughout the building except in the science labs and the media center. These areas will receive stained wooden casework. A typical classroom will have built-in teacher desks with a teacher wardrobe attached. The classrooms will also include a tall bookcase, base cabinets and wall cabinets.

### Doors and Windows

Exterior doors will be painted metal with insulating tempered glazing and painted hollow metal frames except at the aluminum storefront and curtainwall where they will be aluminum. Interior doors will be stained solid core wood doors. All hardware will be ADA compliant.

The classroom windows will be aluminum clad wood, with insulating tempered glass and blinds between the panes. The window color will match the new Science and Technology Building. Other windows will be aluminum storefront with insulating tempered glass.





# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Roofing

The insulation system within the new roof system assemblies will consist of polyisocyanurate roof insulation and perlite roof insulation with a minimum R-value of 30. The roofing membrane on the low sloped roof areas will consist of three plies of fiberglass felts adhered to hot asphalt and an Energy Star granule surfaced modified bitumen cap sheet adhered in cold adhesive. A three year Contractor's Warranty and a twenty year Manufacturer's Warranty will be provided for the low sloped roofing system. All sheet metal components for both roofing systems will consist of pre-finished, minimum 24 gage Galvalume. Other specific flashing details will require other appropriate metal types. The roofing systems will comply with the 2012 IBC and ACPS requirements.

### Structural System

The structural design consists of masonry load bearing walls with steel bar joists. The floors will be reinforced concrete slabs with a combination of strip footings at exterior locations and turned down footings at interior locations.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Mechanical Systems

The HVAC system for the new addition will include two air cooled chiller plants, each with multiple chillers, sized at approximately 60% to 75% of the building cooling load, constant speed chiller pumps, and variable speed building chilled water pumps with each pump sized for 100% of the chilled water load. One plant will serve the two story classroom wing (and the new Science Wing). The other chiller plant will serve the remainder of the new buildings and have capacity for the existing Gym, existing Auditorium and a future Gym.

The classrooms, administrative areas, Cafeteria, Media Center, and other teaching spaces will be served with indoor, variable air volume (VAV) air handlers and terminal units with electric heat. The main kitchen and the Culinary Arts Kitchen will be served with a rooftop unit. All air handlers will be dual wall with chilled water coils and SCR electric heaters.

Ducts will be rectangular or spiral galvanized sheetmetal with fiberglass insulation with FRP jackets. Piping will be schedule 40 black steel or Type L copper with polyisoinsulation outdoors and in mechanical rooms and fiberglass insulation with ASJ jacket in other locations. Outdoor piping will have an aluminum jacket. Underground chilled water piping shall have polyurethane insulation with a PVC or FRP jacket.

The control system will be a web based control system by Automated Logic Controls. All components of the HVAC system will be controlled along with water heaters and common lighting zones (primarily corridors and exterior lighting).



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Plumbing System

#### Domestic Water

Wall hydrants will be surface mounted, loose key, anti-freeze with backflow preventer. Hydrants shall be located at approximately 100-ft. vv around perimeter of the building. Roof hydrants will be provided at rooftop equipment for wash down and maintenance purposes. Hose bibb with loose key and vacuum breaker will be located in all toilets with floor drains and in mechanical room.

#### Water Heating

Large demand usage areas (i.e., kitchen, showers, etc.) will be provided with natural gas fired water heaters. Water heaters for lesser usage areas shall be electric storage tank type water heaters. A hot water recirculation system shall be provided with water heater when the hot water system piping exceeds 100 feet from water heater to last fixture.

#### Piping

##### Domestic water lines:

- a. Type "L" copper above floor.
- b. Type "K" copper below floor.

##### Sanitary Sewer and Storm Drain:

- a. No-hub cast iron with heavy duty stainless steel couplings for piping located above floor.
- b. Below grade sanitary sewer and storm drain piping shall schedule 40 PVC.
- c. Below grade grease waste piping shall be hub and spigot cast iron piping with gasketed joints.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Natural Gas Line:

- a. Above floor: Black Steel Schedule 40 or Corrugated Stainless Steel piping by Tracpipe.
- b. Below floor: Black Steel Schedule 40 or Corrugated Stainless Steel piping by Tracpipe with Schedule 40 PVC casing.

### Plumbing Fixtures

Water Closets: Floor mounted flush valve type. Water closets installed in group restrooms shall have sensor operated flush valves. Sensor flush valves shall be self generating Eco power system.

Urinals: Wall hung flush valve type. Urinals installed in gang restrooms shall have sensor operated flush valves. Sensor flush valves shall be self generating Eco power system.

Lavatories: Lavatories shall be wall hung enameled cast iron with hot and cold water faucets. Group restroom shall have sensor flush valves. Flush valves shall be self-generating Eco power type. Single adult restrooms shall have manual faucet with goose neck and 4" wrist blades.

Art Room sinks shall be stainless steel 18 gauge type 302 with hot water and cold water. Art Room sinks will be provided with above floor sediment traps.

Class Room sinks shall be stainless steel 18 gauge type 302 with hot and cold water.

Water coolers shall be stainless steel wall hung vandal resistant type. There shall be one water cooler with bottle filling station on each floor.

A Food Grease Waste Interceptor shall be provided for the Kitchen waste system.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Fire Protection System

The classrooms, Administrative and Cafeteria building will be protected throughout by a wet pipe sprinkler system. The wet pipe sprinkler system shall consist of two zones (One of the zones shall serve the three story portion of the building. Each floor shall be provided with its own floor control valve.). Standpipe risers shall be located in each of the stairs serving the three story portion of the building.

The Fire Riser room for this building shall be accessible from the exterior. The incoming fire line into this room shall be provided with an exterior freestanding Post Indicator Valve (PIV), freestanding Fire Department Connection. A double check backflow preventer and wet sprinkler valve assemblies (i.e., riser check valve and floor control assembly) shall be located inside this room. An exterior horn/strobe shall be provided to indicate activation of sprinkler system.

The new two story classroom building will be protected throughout by a wet pipe sprinkler system served from the existing Science Building Addition. Standpipe risers shall be located in each of the stairs of the building.

A recent water flow test is not yet available. However based upon experience in the area there should be sufficient water flow and pressure to support the fire sprinkler system without the need of a fire pump.

The mechanical rooms, electrical rooms, storage areas, water heater rooms, janitor rooms, Data rooms, Kitchen, Science Labs, and Computer Labs shall be designed for Ordinary Hazard Group I occupancy. The remainder of the building shall be designed for Light Hazard Occupancy.

The fire protection system shall be seismically braced and restrained as required for a Seismic Design Category 'C' facility.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

Flat plate concealed sprinklers will be provided in all areas with finished ceilings.

Upright sprinklers will be installed in mechanical rooms, electrical rooms, storage rooms, and similar rooms and any other space without ceilings.

### Electrical and Special Systems

#### Electrical Distribution System

A new underground service lateral will be obtained from a new utility company pad-mount (SCE&G) transformer.

Service voltage will be 480Y/277 3 phase 4 wire. Nominal service size will be 4000A at 480Y/277 3 phase 4 wire.

Lighting will be served at 277V single phase where applicable. Mechanical loads will be served at 480V 3 phase.

Receptacle and miscellaneous loads will be fed at 120V single phase.

Surge Protective Devices (SPD) will be provided for the main service to the building and at stepdown transformer locations.

Spare capacity will be designed into the distribution system for future growth.

Emergency power will be derived from an outdoor diesel generator set in a sound attenuated weatherproof enclosure. Nominal size is estimated to be 125 kW at 480Y/277 3 phase 4 wire.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

Emergency power will be provided for exit signs, egress lighting, fire alarm system, telephone, communications equipment, security systems, and technology/IT closets. In addition, emergency power will be provided for coolers/freezers and elevator.

### Lighting:

In most areas, lighting shall consist of specification grade lay-in LED fixtures, products by H.E. Williams as basis of design. Lighting levels will be controlled via simple 0-10V dimming, inherent in contemporary LED driver design, and shall provide separate control for teaching wall. Fluorescent and LED Architectural fixtures will be used for accent lighting where design dictates. Lighting levels to be in accordance with IES recommendations for the intended space utilization.

Emergency lighting will be provided by building fixtures connected to the emergency generator system.

Exit signs shall be of the LED. type, thermo-plastic housings.

Automatic lighting control will be provided in accordance with the requirements of ASHRAE 90.1. Automatic occupancy sensors will be provided for administrative and instructional spaces with products of Watt Stopper as basis of design. Commons area (cafeteria, corridors, gymnasium, etc.), site lighting and building mounted security lighting will be controlled by the building automation system via contactors. Local override switches will be provided by Mechanical.

Building mounted security lighting shall consist of architectural wall packs and recessed can down lights with LED lamp sources.

Parking lot lighting will utilize LED lamp sources.



# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Fire Alarm System

An addressable fire alarm system will be provided. The system will be a voice evacuation type utilizing strobes, speakers, and pre-recorded voice messages to notify occupants.

The fire alarm system will report automatically to a Central Receiving Station.

Basis of design will be systems manufactured by Silent Knight.

### Instruction Technology System

A complete premises wiring system, including fiber optic backbone with CAT 6 copper drops will be provided. This will include a complete conduit and/or cable tray system for support of IT technology wiring and equipment racks for installation of jack panels and Owner installed electronics. Cable tray shall be aluminum ladder type tray. Cable tray system shall be for the sole use of IT, security, CCTV, and other systems installed outside the construction contract. HVAC controls shall not be installed in the cable tray system.

Nominal outlet locations in instructional spaces shall be for two (2) drops per classroom, one for teacher station and one for wireless access point.

Conduit pathway shall be provided within instructional spaces to support multi-media applications between the instructor's station and display equipment.





# NORTH AUGUSTA HIGH SCHOOL

## MATERIALS AND SYSTEMS

### Security Systems

Empty conduit will be provided for an intrusion detection system (IDS), building access control and CCTV systems. System electronics and installation will be included in the construction contract via Owner's security vendor. Device locations to be provided by Owner's security systems vendor for incorporation into the contract documents.

### School Intercom System

A two-way school intercom system shall be provided for calls to instructional areas and for general paging through the building. Basis of design will be Rauland Borg, # TC-21.

Call-back buttons shall be provided in classrooms and selected locations.

Administration phone handsets shall be provided announcements at the main reception desk, principal's office, and the guidance reception desk.

School intercom system wiring shall be installed in conduit and/or the cable tray system.

### Sound Reinforcement System

Sound reinforcement systems and AV presentation systems will be provided in the cafeteria and gymnasium.



# NORTH AUGUSTA HIGH SCHOOL

## PROJECT BUDGET SUMMARY

**NORTH AUGUSTA HIGH SCHOOL  
PRELIMINARY BUDGET ESTIMATE**

*H.G.REYNOLDS COMPANY  
PRECONSTRUCTION SERVICES*

Project : NORTH AUGUSTA HIGH SCHOOL		Project #:		Total Building GSF :		222,719		
Location : NORTH AUGUSTA, SC		Date : 22-Sep-15						
Owner : AIKEN COUNTY PUBLIC SCHOOL DISTRICT		Budget # : 1		Total Project SF Cost \$		241.38		
DIV #	WORK DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT \$	\$/GSF	% BUDGET	REMARKS
2A	AREA 1 - DEMO	SF	12,000	\$ 10.00	\$ 120,000.00			
	BUILDING CONSTRUCTION	SF	117,200	\$ 189.00	\$ 22,150,800.00			
	<b>BUILDING PHASE 2A SUBTOTAL</b>	<b>SF</b>	<b>117,200</b>		<b>\$ 22,270,800.00</b>	<b>\$ 190.02</b>		
2B	AREA 2 - DEMO	SF	45,000	\$ 10.00	\$ 450,000.00			
	BUILDING CONSTRUCTION	SF	105,519	\$ 177.25	\$ 18,703,242.75			
	<b>BUILDING PHASE 2B SUBTOTAL</b>	<b>SF</b>	<b>105,519</b>		<b>\$ 19,153,242.75</b>	<b>\$ 181.51</b>		
	<b>Projected Subtotal Construction</b>	ls			<b>\$ 41,424,043</b>	<b>\$ 185.99</b>		
	<b>SCHEMATIC DESIGN / ESTIMATE CONTINGENCY</b>	%			<b>\$ 2,071,202</b>		5.00%	
	<b>Projected Total Construction</b>	ls			<b>\$ 43,495,245</b>			
	Professional/Technical/Inspection FEES	%			\$ 5,219,429		12.00%	
	Fixtures, Furnishings & Equipment; Technology	%			3,479,620		8.00%	
	<b>COST OF WORK</b>	ls			<b>\$ 52,194,294</b>			
	OVERALL PROJECT CONTINGENCY	%			\$ 1,565,829		3%	
	<b>BUDGET TOTAL</b>	ls			<b>\$ 53,760,123</b>		<b>100.00%</b>	



# NORTH AUGUSTA HIGH SCHOOL

## PROJECT SCHEDULE



### North Augusta High School Phase 2 Preliminary Design and Construction Schedule

