

NEW HIGH SCHOOL ALAMANCE BURLINGTON SCHOOL SYSTEM

SCHEMATIC DESIGN REPORT



FEBRUARY 07, 2020

Schematic Design Report Contents:

1) Schematic Design Status Summary

2) Schematic Design Narratives

- a. Architectural
- b. Civil
- c. Structural
- d. Fire Protection
- e. Plumbing
- f. Mechanical
- g. Electrical

3) Program Requirements

4) Memorandum of Conference

Schematic Design Status Summary:

The Alamance Burlington New High School is designed per the program requirements as discussed and reviewed with the school system. All local governing authorities have been notified for this project and the completed “New High School– Schematic Design Package” will be submitted to the appropriate agencies for their review and comments. Once comments are received, they will be shared with the owner and incorporated in the next drawing phase for future review and approvals.

The Schematic Design Package will be given to Samet Corporation (CM@Risk) to produce the cost estimate report. Additionally, the Schematic design 2019 Revit model will be shared with Samet Corporation to help assist with this task. Moseley Architects will submit a separate cost estimate as required by the prime agreement for cost comparison.



Architectural Narrative:

The New School is situated on an approximately 96-acre site and will be nearly 221,000 SF, which includes the CTE stand-alone building. The new construction will have two levels. The Main Level will consist of three main sections: A more public wing that will consist of the auditorium, gymnasium, and axillary gymnasium; a center area which consist of the student commons and media center; and the third area which will house two separate academic classroom wings. CTE spaces will be provided in the southern academic wing which will be adjacent to a stand-alone CTE building. Collaborative learning and teacher support areas will be distributed throughout to provide flexible faculty and student spaces. The Second Level will be similar to the main level's academic wings. Student support services will be located on this level for convenient access. A portion of the second floor will be open to the floor below at the student commons area.



Preliminary furniture layouts will be provided for the dining area, media center, auditorium, gymnasium, and science classrooms once further discussions with the Owner have taken place. These areas, as well as the remainder of the school will be reviewed and coordinated in greater detail as the design progresses.

The roofs will be comprised of a sloping standing seam metal roof and a low sloped roofing system. Composite metal wall panels will be used to help visually lighten the structure and provide modern elements of design as noted during the community and student design workshops. The exterior will be primarily architectural masonry with varying patterns and colors. Larger areas of storefront glazing will be used to help quickly identify primary and secondary building entrances. The remaining fenestration will be scaled appropriately for aesthetics and function.

*“The **Main Level** will consist of three main sections: A more public wing that will consist of the auditorium, gymnasium, and axillary gymnasium; a center area which consist of the student commons and media center; and the third area which will house two separate academic classroom wings. CTE spaces will be provided in the southern academic wing which will be adjacent to a stand-alone CTE building. Collaborative learning and teacher support areas will be distributed throughout to provide flexible faculty and student spaces.”*



*“The **Second Level** will be similar to the main level’s academic wings. Student support services will be located on this level for convenient access. A portion of the second floor will be open to the floor below at the student commons area.”*



Civil Narrative:

General Site Information

The site for the proposed Alamance HS is located just south east of S NC HWY 119, approximately 1500' south east of the intersection with Jim Minor Road. The site is approximately 96.0 acres and has no zoning associated with it. There is a 40' front setback, 20' rear setback and a 10' side setback.

Vehicular and Pedestrian Circulation

On-site Driveways

The site will be accessed by S NC Highway 119, using three entrances. The southernmost driveway will be used to access the student parking lot. The center driveway will be used for parent drop off and pick up. The northern most driveway will be used for bus pick up/drop off and parking.

Fire Lanes

A driveway along the back of the proposed building connecting the student parking lot and the bus parking lot will allow a fire apparatus vehicle access to within 150ft from all parts of the buildings. The site complies with current IFC and local fire codes.

Sidewalks

Concrete sidewalks and crosswalks will be utilized to provide pedestrians with a safe and direct path from parking areas to the main building entrance.

Off-site Roads

A Traffic Impact Analysis will be completed. Off-site road improvements are anticipated.

Parking Lots

The conceptual plan for the Alamance High School provides approximately 500 parking spaces for the student parking lot. At the front of the school, there will be 157 staff parking spaces and 20 visitor parking spaces. The bus parking lot will have 20 parking spaces. A network of sidewalks will direct students, staff and visitors to the entrances. The parking lots are placed to provide ease for access to both the building and the sports fields.

Sports Fields

The Alamance High School will include a variety of sports fields. A track with a football field is located at the north eastern side of the building. The soccer fields are located south of the student parking lot. The baseball and soft ball fields are located south east of the track and football field. The sports fields will utilize the student parking lot for sporting events.

Utilities

Water Service

Domestic and fire service for the site will be made by tapping into the existing 12" water line located along S NC Highway 119. A backflow preventer and water meter will be added to the domestic service. A backflow preventer will be added to the fire service.

Irrigation

No irrigation system is planned for this project.

Sanitary Sewer

Sanitary sewer will be routed to the existing gravity sewer system located at the south western side of the site in the Autumn Trace neighborhood. The existing sewer currently has capacity for the school's flows.

Electrical Power

There is overhead power located throughout the site.

Site Grading, Drainage and Stormwater Management

Grading

The site will be graded to provide a low amount of impact to the natural terrain, existing drainage patterns, and environmental features. It is anticipated that the building will be located at the high point of the site and the parking lot and sports fields will be graded to use natural terrain.

Drainage

The runoff from impervious surfaces will be conveyed into the proposed stormwater management facilities by way of storm sewer and/or grass swales. A combination of grass swales and plastic yard drains will be installed as necessary to help minimize storm sewer costs. A minimum amount of reinforced concrete storm sewer and inlets will be installed in the parking lots.

Stormwater Management

The site shall comply with NCDEQ Stormwater requirements. The site will be designed such that the post-development discharge rate and quantity does not exceed the pre-development discharge rate and quantity for the one-year 24 hour design storm. Stormwater SCM's will be used throughout the site to comply with the stormwater requirements.

Conserving and Protecting the Natural Environment

Erosion and Sedimentation Control

Erosion and sediment control will be provided during the construction in accordance with NCDEQ standards.

FEMA Floodplain

According to FEMA / FIRM Mapping, the site is not located in a mapped 100-year Floodplain.



Structural Narrative:

Foundations:

We anticipate the proposed structure shall be supported on shallow foundations consisting of continuous concrete strip footings for walls and isolated concrete spread footings for columns. Thickened slabs shall support interior masonry partitions. Foundations shall be sized for allowable soil bearing pressure dependent on the final geotechnical report and shall be placed at or below the frost depth of 18 inches below grade. We anticipate the slab on grade shall be a 4" or 5" reinforced concrete slab, dependent on floor finishes and anticipated construction loading.

Structural System:

The building shall be a steel framed structure consisting primarily of steel columns, open web steel joists and steel beams. At the gym and other one-story areas, roof framing shall be open-web steel joists supported primarily by reinforced CMU walls. Steel roof deck shall be 1-½" steel roof deck with acoustical batts where desired. At the gym area, the roof shall be a 3" acoustic cellular steel roof deck. Second floor and equipment platform floors shall consist of steel beams supporting a composite reinforced concrete slab. Slab shall consist of a 2" composite steel deck with lightweight concrete and the total slab thickness shall be approximately 5". Lateral loads shall be resisted by a combination of steel braced frames and reinforced CMU shear walls. We anticipate that two building expansion joints will be required.

Structural Design Load Basis

Dead Load: Actual calculated weight of permanent construction.

Roof Load: 20 PSF or Snow Load, whichever is greater.

Occupancy Category: III

Floor Load:	Slab on Grade	= 100 PSF
	Framed Floors	= 80 PSF (UNO)
	Mechanical/Electrical Rooms	= 150 PSF
	Storage Rooms	= 150 PSF
	Stairs	= 100 PSF
Snow Load:	Ground Snow Load	= 15 PSF
	Importance Factor	= 1.1
	Exposure Factor	= 1.0
	Thermal Factor	= 1.0

	Flat Roof Snow Load	= 17 PSF
Wind Load:	Basic wind speed	= 120 MPH
	Exposure Category	= B
	Internal Pressure Coefficient	= .18 (plus or minus)
	Components & Cladding Wind Pressure per 2018 NCSBC and ASCE 7-10	
Seismic Load:	Seismic importance factor	= 1.25
	Site class	= D (assumed)
	Mapped Spectral Response Accelerations	
	S_s	= .16
	S_1	= .08
	Risk Targeted Spectral Response Accelerations	
	S_{ms}	= .26
	S_{m1}	= .19
	Design Spectral Accelerations	
	S_{ds}	= .17
	S_{d1}	= .13
	Seismic design category	= B (to be verified)

Fire Protection Narrative:

General Provisions

Fire Protection work will consist of providing new automatic sprinkler systems throughout the building. A fire flow test will be performed using fire hydrants near the site, and the results will be used to determine the need for a fire pump.

The work will be in accordance with all current federal, state, town, and local codes, standards, and ordinances including, but not limited to the following:

- North Carolina State Building Code: Building Code – 2018
 - 2015 International Building Code, (IBC) – as amended
- North Carolina State Building Code: Fire Prevention Code – 2018
 - 2015 International Fire Code, (IFC) – as amended
- NFPA 13, Standard for the Installation of Sprinkler Systems – 2013
- NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection – 2013

Fire Suppression Water Supply

The available pressure and flow of the public water utility will be verified by means of a fire flow test. This fire flow test data will be utilized in determining the need for a fire pump. If a fire pump is required for the sprinkler system, it will be designed and installed in accordance with NFPA 20.

A new fire protection supply main will be provided from the point of utility connection into the building sprinkler riser room or fire pump room by the site utilities contractor. The water supply will be protected against backflow from the sprinkler system by a reduced pressure detector backflow preventer assembly (RPDA). The backflow preventer will be located in a weatherproof enclosure on the property as close to the connection to the public water utility as possible. A fire department connection will be provided remote from the building in a location approved by the local fire marshal.

Automatic Sprinkler Systems

The new building will be protected throughout with a hydraulically calculated, automatic sprinkler system designed and installed in accordance with NFPA 13.

The sprinkler system will consist of light and ordinary hazard occupancy classifications. Light hazard areas include classrooms, lobbies, restrooms, offices, and other similar low risk spaces. Ordinary hazard areas include mechanical rooms, janitor's closets, storage rooms, and other similar moderate risk spaces.

Aboveground piping for sprinkler and standpipe systems will be schedule 10 black steel with welded or roll-grooved fittings for piping 2½ inches and larger and schedule 40 black steel with welded, threaded, or roll-grooved fittings for piping 2 inches and smaller.

Ordinary and intermediate temperature standard spray sprinklers will be typical throughout the protected spaces. Concealed pendent sprinklers will be provided in areas with suspended ceilings at heights of 9 feet or less. Upright sprinklers will be provided in areas with exposed structure. Sidewall sprinklers will be installed where appropriate. Concealed sprinklers will have finishes to match adjacent building finishes. Guards will be provided on exposed sprinklers in all gyms, multipurpose rooms, and mechanical and/or equipment rooms.

The fire protection systems will be monitored by the building fire alarm systems in accordance with the requirements of NFPA 13, NFPA 20, and NFPA 72. Refer to fire alarm systems design section for additional information.

Plumbing Narrative:

General Provisions:

Plumbing work will consist of providing new domestic cold water, domestic hot water, sanitary sewer and vent, and natural gas systems to serve new plumbing fixtures, miscellaneous fixtures and equipment. The fire protection system will consist of a new wet pipe system for the facility.

All work shall be in accordance with all current federal, state, town and local codes, standards, and ordinances including but not limited to the following:

- 2015 International Building Code (IBC)
- 2012 International Plumbing Code (IPC)
- 2012 International Fuel Gas Code (IFGC)

Plumbing Fixtures and Equipment

Plumbing fixtures shall be high efficiency commercial grade units and specified to reduce water consumption. Fixtures accessible to the physically handicapped shall be provided where required by the building code. Water closets shall be floor-mounted, floor-outlet, flush valve units with manually-operated, 1.60gpf flush valves; Toilet room lavatories shall be wall-hung and/or counter-mounted, self-rimming units with manually-operated, dual-temp, 0.50gpm faucets; Shower valves shall be wall-mounted, manually-operated, single lever, 2.00gpm faucets with integral supply stops and reversible supply inlets; ADA-compliant shower units shall be provided with adjustable, hand-held, shower unit in addition to the standard shower valve and head assembly; Mop basins shall be floor-mounted, units with manually-operated faucets with integral vacuum breaker, supply check stops, male thread hose end, pail hook, and adjustable wall anchor; Electric water coolers shall be bi-level units with integral cane aprons and bottle filling stations where desired; Kitchenette and breakroom sinks shall be 18 gauge, stainless steel, counter-mounted, self-rimming units with manually-operated, 1.00gpm faucets.

Floor drains shall be provided in all public group toilet rooms, mechanical rooms, and janitor's closets. Floor sinks shall be provided in all food service areas and will be acid-resistant, stainless steel units with integral strainer baskets. Trap primer devices shall be provided for all floor drain and floor sink locations. Sump pumps shall be provided at the base of each elevator shaft and shall be provided with oil-sensing alarm and located in 24" x 24" x 18" deep sump pits. Sump pump forced main shall be piped to exterior wall and terminate to exterior grade via splashblock. Exterior wall hydrants shall be non-freeze, self-draining units enclosed in lockable, recessed wall

boxes. Roof hydrants shall be non-freeze, self-draining, deck-mounted units with drain piped to approved termination point. Hose bibbs shall be provided with integral vacuum breakers and be located in all mechanical rooms. Emergency fixtures shall be provided where required and shall be provided with emergency thermostatic mixing valves set to deliver tepid 85°F water. Emergency thermostatic mixing valves shall comply with ANSI Standard Z3518.1 for emergency fixtures.

Commercial laundry units shall be provided with a trench drain with integral lint separator screen to facilitate the removal and separation of lint from the waste system. A below-grade, centralized, grease interceptor shall be provided to serve the kitchen and food service areas and shall be provided with integral FOGs monitoring system with alarm linked to Building Automation System (BAS).

New domestic water service shall extend from the site domestic water main to the building domestic water service entrance room or mechanical room. A building shutoff valve, strainer, utility water meter linked to BAS, pressure reducing valve (required where incoming pressures may exceed 80psi), and reduced pressure zone principal backflow preventer shall be provided on the domestic water service entry to the building. Where pressures are inadequate a domestic water booster pump and hydro-pneumatic tank may be required. This booster pump assembly (when required) shall be a packaged skid consisting of three, equally sized, VFD controlled, pumps sized at 50% of the total building load. Hydro-pneumatic tanks shall be twin, parallel units sized to ensure proper minimum pump runtime, pressure balancing, and drawdown. The building pressure reducing valve (when required) shall be provided with a full-sized bypass and separate pressure reducing valve. Additional backflow protection devices shall be provided for mechanical make-up and other service water equipment where required.

Domestic Water Piping System

The domestic water system shall extend and connect to all plumbing fixtures, miscellaneous fixtures, and equipment. All under-ground domestic water piping shall be Type K, soft copper piping with brazed joints and wrought copper fittings. All above-ground domestic water piping shall be Type L, hard-drawn copper piping with wrought copper and copper alloy solder joint pressure fittings in conformance with ANSI B 16.22. Pipe insulation for the domestic water systems will be fiberglass insulation with ASJ. PVC or aluminum jacketing and/or weatherproofing shall be provided for insulation where applicable.

The domestic hot water system demand shall be provided by the use of condensing, gas-fired, domestic, water heaters. Final domestic hot water storage shall be set to maintain a storage

temperature of 140°F minimum. Kitchen domestic hot water shall be provided by a dedicated 140°F loop and recirculation pump. Building domestic hot water shall be provided by an ASSE 1017 thermostatic master mixing valve, dedicated 110°F loop, and recirculation pump. Storage and thermal expansion tanks associated with the domestic hot water system shall be ASME rated and water heaters shall be UL listed.

Sanitary Piping System

The building sanitary system shall extend and connect to all plumbing fixtures, floor drains, miscellaneous fixture and equipment and be design to discharge by gravity to the site sanitary sewer system. Below grade soil, waste, and vent piping shall be service weight cast-iron hub and spigot assembled with mechanical joints or schedule 40 DWV PVC where approved by owner. Above grade soil, waste, and vent piping shall be cast-iron no-hub assembled with no-hub couplings and fittings. A separate high temperature, acid-resistant, coated, sanitary system with extra-heavy cast-iron pipe and fittings shall be provided to serve the kitchen areas and shall extend to a central below-grade grease interceptor system located adjacent to the building. Final capacity of the grease interceptor shall be determined upon review of final kitchen equipment layout and selections, kitchen serving capacity, and facility operation characteristics.

Storm Water Piping System

The building storm water system shall be design to discharge by gravity to the site storm water system. Below grade storm water piping shall be service weight cast-iron hub and spigot assembled with mechanical joints or schedule 40 DWV PVC where approved by owner. Above grade storm water piping shall be cast-iron no-hub assembled with no-hub couplings and fittings. Horizontal storm water piping and drain bodies within the building shall be provided with insulation. Roof overflow drainage shall be accommodated by means of an independent overflow drainage system discharging in readily visible location in accordance with building code requirements. Building downspouts and internal roof drains shall connect to an underground storm water drainage system via downspout boots with integral cleanout plugs or ports.

Gas Piping System

The building natural gas piping system shall extend and connect to all kitchen, mechanical, plumbing, and miscellaneous equipment requiring gas service. Below grade, exterior, gas piping shall be schedule 40 black steel piping and fittings with factory applied protective coating and jacketing, or other approved below grade gas piping material. Below grade gas piping shall also be provided with warning/indicator tape. Above grade, interior, gas piping shall be schedule 40 black steel piping and fittings. The natural gas piping system shall extend to the building

perimeter where it shall be provided with a building service regulator, to reduce to the desired building system pressure, and building service meter. Equipment line regulators shall be provided at equipment or equipment groups to further reduce the system pressure to the required inlet pressure of the equipment being served. The portion of natural gas piping system directly serving kitchen equipment shall be provided with an emergency shutoff valve and shunt switch interlocked with the hood fire suppression system. The portion of natural gas piping system directly serving commercial laundry dryers shall be provided with an emergency shutoff valve and shunt switch interlocked with the laundry fire suppression system, when and where applicable.

Mechanical Narrative:

General Provisions

The mechanical portion of the work will consist of providing heating, cooling, ventilation, and exhaust for the facility.

The mechanical systems will comply with all current federal, state and local codes, standards, and ordinances including:

- 2018 North Carolina Building Code
- 2018 North Carolina Mechanical Code
- 2018 North Carolina Energy Conservation Code
- ASHRAE Standard 62.1-2010 *Ventilation for Acceptable Indoor Air Quality*

Design Conditions

The following data will serve as the basis of design in sizing the mechanical equipment:

Design outside air conditions (per ASHRAE):

- Summer: 94°F DB/76°F WB
- Winter: 18°F DB

	<u>SUMMER</u>	<u>WINTER</u>
Classrooms and Resource Rooms	75°F	70°F
Offices and Conference Rooms	75°F	70°F
Gymnasium	75°F	70°F
Auditorium	75°F	70°F
Server Room	70°F	70°F
Mechanical Rooms, Storage Rooms	85°F	60°F
Spaces during unoccupied periods	85°F	55°F

Mechanical System

The central heating source will be three high efficiency gas-fired condensing boilers located in the main mechanical room. The hydronic heating system will be designed for a large temperature difference between the supply and return water temperatures (50-60°F). The large temperature difference reduces the required flow rate of hot water which reduces the size of pumps/piping and provides a low return water temperature which will ensure high efficiency, condensing operation of the boiler plant during off-peak operation. Base-mounted pumps located in the main mechanical room will distribute the hot water to the coils throughout the building via a primary-secondary pumping strategy. The primary pumps will be constant volume and the secondary

pumps will be variable volume. Each set of pumps will be arranged in a duty/backup configuration.

The central cooling source will be two air-cooled chillers located in the mechanical equipment yard outside the main mechanical room. The chiller plant will be designed with a large temperature difference between the supply and return chilled water temperatures. A large temperature difference reduces the required flow rate which reduces pump size and pipe size. Base-mounted pumps located in the main mechanical room will distribute the chilled water to the coils throughout the building via a variable primary pumping strategy. The pumps will be variable volume. Each set of pumps will be arranged in a duty/backup configuration.

The central variable air volume (VAV) air handling units will be located in indoor, penthouse mechanical rooms and will be equipped with chilled water coils, hot water coils, energy recovery, economizer operation, and variable speed supply and relief fans. The units will provide filtered, conditioned, dehumidified air to VAV terminal units in each zone. VAV terminal units will be equipped with hot water reheat coils to provide individual space temperature control. Individual classrooms will have their own VAV terminal units with space temperature sensors for control. Smaller spaces with similar exterior exposures and/or use will be zoned together and controlled by a temperature sensor located in one of the spaces in the zone.

Large spaces like the gymnasium, dining area, and auditorium will be served by dedicated air handling units that provide direct control of space temperature, space humidity levels, and ventilation requirements. The units will be equipped with demand-controlled ventilation to vary the quantity of ventilation air based on the requirements of the occupancy level.

The main server room with high density cooling loads will be served by a dedicated split-system computer room air conditioning unit with direct expansion (DX) cooling.

Mechanical exhaust will be provided for the toilets, janitors closets, utility rooms, storage rooms, and mechanical/electrical spaces. Hot water or electric unit heaters will serve mechanical equipment rooms and other utility spaces subject to freezing.

All systems will be tested and balanced for correct operation by a testing, adjusting and balancing (TAB) contractor hired by the general contractor, not the mechanical subcontractor.

Building Automation System (BAS)

The HVAC system will be controlled by a BAS and will be configured to allow web access by authorized personnel.

Classrooms will include temperature sensors with temperature adjustment sliders that allow $\pm 3^{\circ}\text{F}$ of local adjustment and a display indicating space temperature. Sensors in public spaces will be blank plate sensors or include lockable guards.

Each VAV box will be equipped with factory-installed terminal equipment controllers and actuators.

The following control strategies will be included:

- A. Optimized Start – This is an energy saving strategy where the BAS determines when to start equipment to minimize the time necessary to reach occupied setpoints during morning startup.
- B. Occupied / Unoccupied / Maintenance Modes – The BAS will include three modes of operation. Occupied operation maintains comfortable conditions in the building during school hours. Unoccupied mode maintains setback temperature setpoints while still controlling humidity levels. Maintenance mode is used after the students and teachers leave and maintenance or housekeeping work is performed. During maintenance mode, occupied temperature setpoints are maintained, but outside air is reduced to conserve energy.
- C. CO₂-Based Demand-Controlled Ventilation – This control strategy conserves energy usage by the HVAC system by reducing ventilation during partial occupancy. For example, the mechanical code requires a large volume of outside air for the gymnasium during peak occupancy. During a typical school day, the occupancy in the gym will be much lower. During these periods, the outside air volume in its air-handling units(s) can be reduced to match the actual occupancy rather than the maximum occupancy. CO₂ sensors are available with self-calibration features that require no maintenance of the sensor's rated life (15 years).
- D. Event Scheduling – The BAS will allow for scheduling the HVAC system to operate during certain times. Holidays, weekends and breaks can be scheduled as well.
- E. Economizer Operation – The BAS can save energy by increasing the amount of outdoor air introduced at the air-handling units when outside air conditions permit.
- F. Energy Recovery – Enthalpy wheels or plates in the air handling units will reduce the heating and cooling load on the equipment. By recovering the available energy in the building exhaust airstream, outside air can be pre-cooled in the summer and pre-heated in the winter.
- G. Supply Fan Static Reset – This control strategy uses variable-speed drives on the supply and relief fans in the air-handling units to vary the supply fan speed to match the building load. The building will operate at an off-peak condition most of the time. During off-peak operation, the supply and relief fans can be slowed down to save fan energy.

Electrical Narrative:

General Provisions

The electrical portion of the work will consist of providing building power, lighting, communication, security, data network system, raceways and boxes, and fire alarm systems for the facility.

All electrical work shall be in compliance with all applicable Federal, State, and local laws and regulations governing standards of design, construction, workmanship and material. Electrical work shall be in compliance with the 2014 National Electrical Code.

Electrical Service

The building power will be obtained from a new underground electrical service. Power will be provided by Duke Energy Progress via a pad-mounted transformers. The power system design will be based upon utilizing a 480Y/277-volt, 3-phase, 4-wire system, rated for 4000 Amperes.

The building will be certified for arc-flash.

Standby Power Generator Systems

Emergency power in the event of loss of utility power shall be supplied by a 480-volt diesel driven emergency generator. The proposed unit will be located outdoors with a weatherproof enclosure and a base mounted diesel fuel tank to provide 24 hours of continuous operation.

The generator will carry selected building loads including the "Life Safety" NEC 700 lighting loads, and "Optional Standby" NEC 702 loads. Two transfer switches will be provided; one for NEC 700 and the second shall be for NEC 702 loads.

Optional Standby loads shall consist of equipment in IT closets, refrigerators, freezers, and all power/HVAC in assembly spaces.

Electrical Sitework

The site electrical work shall consist of trenching and backfilling required for underground wiring. The underground wiring will run from the connection point designated by the utility company to the new transformer located in the equipment yard. The underground conduit system shall consist of a duct bank of schedule 40 polyvinyl chloride (PVC). The pad mounted transformer will be mounted on a concrete pad constructed in the equipment yard. The contractor will construct

the concrete transformer pad and provide the duct bank. Dominion Virginia Power shall provide the secondary conductors from the Power Co. transformer to the building switchboards.

Lighting

Lighting will be installed in accordance with the recommended Illumination Engineering Society (IES) Standards and the NCECC (North Carolina Energy Conservation Code).

A complete system of artificial interior lighting shall be provided for all spaces. In general, all interior lighting shall be LED. Scene switches will give the ability to control specific lighting zones. All spaces will be provided with occupancy/vacancy sensors as applicable to the NCECC.

Types and grades of fixtures intended for the following areas:

1. Offices – recessed LED lensed fixtures. Lighting levels shall be minimum 50 foot-candles in the offices.
2. Corridors – recessed LED lensed fixtures. Lighting levels shall be approximately 20 foot-candles in the corridors.
3. Mechanical – strip style LED fixtures with acrylic lenses, surface or pendant mounted. Lighting level shall be approximately 40 foot-candles.
4. Storage areas – strip style LED fixtures with acrylic lenses, surface or pendant mounted. Lighting level shall be approximately 30 foot-candles.
5. Exterior and Site lighting – LED wall and pole-mounted fixtures rated for wet locations and compliant with the BUG (Backlight, Uplight, Glare) rating method to improve visibility and minimize light pollution. Lights shall be scheduled to run by the BAS schedule with an override by the photocell. There will be an alternate to deduct the base bid provided parking lot/driveway lighting and replace them with leased lighting provided by Duke Energy Progress.

6. Classrooms shall be provided with 2x4 LED architectural fixtures. 50 – foot-candles.
7. Computer labs shall be provided with 2x4 LED architectural fixtures. 30 – foot-candles.
8. Science Classrooms shall be provided with 2x4 LED architectural fixtures. 70 – foot-candles.
9. The gymnasiums shall be provided with LED high-bay fixtures. 70 foot-candles.
10. Cafeteria/commons – 30 foot-candles
11. No open light fixtures shall be used in the building. Wire guards or vandal resistant light fixtures shall be used in areas of high abuse such as gymnasium.
12. Emergency Egress Lighting: Egress lighting will be designed to provide 1.0 foot-candle average, 0.1 foot-candle minimum lighting with a max/min uniformity ratio no more than 40:1.
13. All corridors shall be locally switched with key-operated switches. Group toilets shall be switched with the corridors.
14. All exit signs shall be LED.
15. Kitchen, locker rooms and other humid areas shall be provided with light fixtures with aluminum door frames to prevent rust. Kitchen – 50 foot-candles. Locker Rooms – 20 foot-candles
16. No light fixtures shall be placed directly over stairs. All light fixtures shall be accessible with standard equipment.
17. Emergency lighting and exit lighting for all paths of egress within and outside the building will be provided by the generator via an automatic transfer switch.

Switchboards

The Switchboards shall be provided with an integral transient voltage surge suppressor. We will not provide undervoltage protection as this can trip off upon a power outage and leave the building off when utility resumes.

The switchboards shall consist of a Main Circuit breaker section and group mounted circuit breaker distribution sections.

Wireless Clocks

A wireless clock system shall be provided for the building. The basis of design shall be Sapling.

Devices, Conduits, and Connectors

All devices such as light switches and receptacles shall have a minimum rating of 20 amps. Device covers shall be constructed of stainless steel in office, corridors and classroom areas. Galvanized cover plates shall be provided for unfinished areas. NEMA 3R "IN-USE" cover plates shall be provided for all exterior receptacles.

The corridor receptacles shall be placed on dedicated circuits so that floor cleaning equipment will not interfere with classroom receptacles.

Gang restrooms shall be provided with electric hand dryers.

Conduits shall be used for all systems 25-volts and higher. Minimum trade size conduit allowed shall be 3/4". All conduits shall be concealed where possible. All conduit in finished spaces shall be concealed. The classification of conduit usage shall be as follows:

1. Underground/under-floor slab – PVC Schedule 40.
2. Parking/Roadway, Heavy Traffic – PVC Schedule 80.
3. Interior – Electrical Metallic Tubing with steel fittings.

Conduit shall be exposed in mechanical equipment and utility spaces. Elsewhere, it shall be concealed above ceilings, in chases and in furred spaces. Flexible connections to light fixtures, devices, and equipment shall utilize flexible conduit, maximum six feet in length. Rigid Steel Conduit shall be provided for all above grade exposed conduit.

Branch circuit wiring for power and light shall generally be type THHN/THWN. All conductors No. 10 AWG and smaller shall be solid copper. All conductors No. 8 AWG and larger shall be stranded copper. All power conductors shall be insulated for 600 volts.

Data Network

All data cabling including boxes, raceways, cable, terminations, racks, and patch panels shall be provided under the contract documents. The owner shall be responsible for network switching, patching between network switch and patch panel, and network configuration.

Fiber optic cable distribution shall be provided between network closets. Basis of design for network cable shall be indoor/outdoor Corning FREEDM cable.

Cable tray shall be provided throughout the corridors and to allow for future access to main paths of data cable travel.

The entire school shall be wired for wireless network services.

There shall be seven data drops per classroom, three in the ceiling for a wireless access point, two on teaching wall and two on wall opposite of teaching wall.

All cabling shall be Category 6A with the potential of evaluating cost of Category 7 cable as the project progresses. Basis of design is Belden 10GXS cable.

Fire Alarm System

Basis of Design manufacturer: Notifier

Acceptable Manufacturers: Edwards, Siemens, and Honeywell

The fire alarm system shall be of the emergency voice evacuation system type. Rather than the traditional horn alarm, an emergency voice evacuation system uses intelligible pre-recorded messages announced over the fire alarm speakers. The system will include fire alarm-programmed dry contacts for security electronics and building automation system monitoring of fire alarm status. All cabling for the fire alarm system shall be in conduit.

An LCD text annunciator panel with full system operability will be provided in the entry lobby as part of the fire alarm system. A graphic annunciator will also be provided if requested by the Building Official. The fire alarm system will have an IP communicator and a cellular communicator for monitoring and alarm.

Manual pull stations, smoke detectors, thermal detectors, visual indication, and speakers shall be located at all required locations in accordance with applicable codes and standards. Devices in suspect-accessible areas shall have protective covers. All system interfaces such as auxiliary control panels and wiring shall be as recommended by the system manufacturer.

Duct detectors for mechanical units shall be kept to code minimum.

Public Address System

The public address system shall be provided throughout the building. The system's basis of design will be a Bogen Multi-Com system, matching the existing systems in other buildings.

Security, Motion Detection, and Video Surveillance

Security, motion detection, and Video surveillance drawings shall be provided as part of the construction documents.

All exterior doors shall have access control equipment as well as video surveillance coverage. Moseley Architects shall provide a layout of cameras throughout the exterior perimeter as well as in strategic locations throughout the building for review and approval by the owner.

Motion detection basis of design shall be Honeywell to match the existing systems in other schools throughout the school system.

Sports Lighting

The following sports fields shall have illuminated fields:

1. Baseball Field; 50FC infield, 30FC outfield.
2. Softball Field; 50FC infield, 30FC outfield.
3. Football Field (50FC) and Track (20FC).

Musco shall be the Basis of Design for the Sports lighting.

New High School

Alamance-Burlington School System

August 8, 2019

ARCHITECTURAL PROGRAM WORKSHEET

New High School 1250 (1500 Core)			
GENERAL CLASSROOMS			
English	10 @	800	8000
Foreign Language	3 @	800	2400
Social Studies	8 @	800	6400
Math	9 @	800	7200
Science	4 @	800	3200
Subtotal	34		27200
SCIENCE			
Biology Lab	3 @	1200	3600
Chemistry Lab	3 @	1500	4500
Flex Lab	1 @	1200	1200
Common Prep/Storage	4 @	250	1000
Subtotal	7		10300
RESOURCE/EXCEPTIONAL EDUCATION			
Resource Room	2 @	450	900
EC- Life Skills- OCS	2 @	1200	2400
kitchen/toilets	1 @	400	400
ISS	1 @	500	500
ESL	1 @	800	800
Subtotal	3		5000
ARTS EDUCATION			
Art	2 @	1400	2800
Storage/Kiln	1 @	200	200
Band	1 @	2000	2000
Ensemble Practice	2 @	300	600
Band Uniforms	1 @	400	400
Instrument Storage	1 @	400	400
Office/ Workroom	2 @	250	500
Music Library/ Storage	2 @	150	300
Chorus	1 @	1200	1200
Chorus Storage	1 @	200	200
Dance	1 @	1800	1800
Subtotal	5		10400
CAREER & TECHNICAL EDUCATION			
Business - Computer Applications	2 @	1200	2400
Marketing	1 @	1200	1200
Business - Classroom	1 @	800	800
FACS	2 @	1400	2800
Interior Design	1 @	800	800
Health Sciences	1 @	1200	1200
Health Sciences - Classroom	1 @	800	800
Horticulture Classroom	2 @	800	1600
Ag Mechanics Lab	1 @	3000	3000
Carpentry Classroom	1 @	800	800
Carpentry Lab	1 @	2500	2500
Subtotal	11		17900

New High School 1250 (1500 Core)			
MEDIA CENTER			
Main Room	1 @	5000	5000
Media Specialist Office/ Workroom	1 @	400	400
ETS Office (Equipment Storage)	1 @	400	400
Multi Media/ periodical Storage	1 @	250	250
STEM storage	1 @	500	500
Conference/ Sm Group	2 @	200	400
Subtotal			6950
DINING & FOOD PREP.			
Student Dining (Commons)	1 @	6500	6500
Kitchen	1 @	2880	2880
Serving Lines	1 @	940	940
Subtotal			10320
HEALTH / PHYSICAL EDUCATION			
Main Gym	1 @	12500	12500
B/G Locker Rooms	4 @	1000	4000
B/G Toilet/Showers	2 @	600	1200
Coach Office/Toilet/Shower	2 @	400	800
Training	1 @	400	400
Laundry Room	1 @	200	200
Equipment Storage	1 @	1500	1500
Official shower/lockers	1 @	200	200
Concessions	1 @	240	240
Lobby	1 @	2000	2000
Auxiliary Gym	1 @	6500	6500
Weight Room	1 @	1600	1600
Wrestling Room	1 @	2000	2000
Health Classroom	2 @	750	1500
AD Office	1 @	150	150
Subtotal	3		34790
AUDITORIUM			
Seating	1 @	5400	5400 600 seats
Stage/Dressing/Stor.	1 @	4000	4000
Lobby	1 @	1200	1200
Subtotal			10600
ADMINISTRATION			
Principal's Office	1 @	250	250
Assistant Principal's Office	3 @	150	450
Waiting/Reception	1 @	800	800
Data Manager/ Attendance	1 @	200	200
Office Workroom/Mail	1 @	400	400
Conference	1 @	400	400
Records	1 @	225	225
Office Storage	1 @	120	120
Bookkeeping	1 @	120	120
Resource Officer	1 @	120	120
Nurse's Office	1 @	350	350
Testing Room	1 @	250	250
Subtotal			3685
GUIDANCE & COUNSELING			
Reception / Waiting/ Career Info	1 @	1000	1000
Conference	1 @	250	250
Counselor	3 @	150	450
Social Worker	1 @	150	150
Community Development Coordinator	1 @	150	150
Community College Coordinator	1 @	150	150
Graduation Coach	1 @	150	150
Student Offices	3 @	120	360
Student Records	1 @	240	240
Psychologist Office	1 @	175	175 Located near EC
Guidance Workroom	1 @	200	200
Student Offices	2 @	250	500 Located on lower level
Subtotal			3775

New High School
1250
(1500 Core)

STAFF SUPPORT			
Teacher Centers	5 @	570	2850
Staff Meeting Room	4 @	285	1140
Extended Learning Areas	4 @	750	3000
Subtotal		6990	6990
STORAGE			
Book Storage	4 @	300	1200
General Storage/Receiving	1 @	1350	1350
Subtotal		2550	2550
TOTAL ASSIGNED SQ. FOOTAGE		150460	150460
			150460

Teaching Stations: 63

BUILDING SUPPORT AREAS			
Circulation			
Toilets			
Stairs			
Elevators			
Computer Closets			
Mechanical/Electrical equip.			
Construction (interior walls, chases, etc)			
Construction (exterior walls)			
Subtotal		65680	
TOTAL GROSS SQUARE FOOTAGE		216,140	

MOSELEYARCHITECTS

August 7, 2019

MEMORANDUM OF CONFERENCE

<u>PROJECT</u>	Alamance-Burlington New High School
<u>ARCHITECT'S PROJECT NO.</u>	591568
<u>DATE AND LOCATION</u>	Thursday, July 18, 2019, ABSS Central Office - Facilities Conference Room
<u>PRESENT</u>	<p><u>For Alamance-Burlington School System</u></p> <p>* Jimmy Russell, Facilities Project Manager Steve Williams, Assistant Maintenance Director for Facilities William Carter, HVAC Controls and Energy Braudie Fitch, Coordinator of AV/Electronics/LAN Dennis Frye, Executive Director of Technology</p> <p><u>For Moseley Architects</u> Ashley Dennis, Managing Principal Nick Lash, Project Manager Jake Einbinder, Electrical Engineer Cary Sorah, Mechanical Engineer</p>

DISCUSSIONS AND DECISIONS.

The purpose of the meeting was to establish the Owner Design Standards for the New High School:

1. FF&E Items
 - a. Toilet Accessories: ABSS will check with the contracting custodial group to get a list of what is provided.
 - b. Owner will provide roll-out walk off mats.
 - c. Residential appliance will be provided by Owner and Installed by Contractor.
 - d. Commercial washers, dryers, and ice machines will be provided by Contractor.
 - e. Weight room equipment will be provided by Owner.
 - f. Scoreboards will be provided and installed by Contractor.
2. Architectural Equipment/Materials
 - a. General
 - (1) Provide standard elevator, not ambulatory. Moseley will provide more information about type of elevator.

MEMORANDUM OF CONFERENCE

RE: ABSS New High School

Page 2

8/7/2019

- (2) No book detection at media center.
 - (3) Provide an electronic marque sign for the monument sign.
 - (4) Projector will be Owner provided. Design for rear projection in the auditorium.
- b. Doors
 - (1) ABSS will provide a list of Owner-preferred alternates for door hardware at a later date.
 - (2) All exterior doors should be FRP.
- c. Gymnasium Equipment
 - (1) Basketball goals – retractable glass backboards on main and side courts.
 - (2) No gymnasium divider.
 - (3) Batting cages and mat movers will need to be determined by the AD.
 - (4) Scoreboards in gymnasiums will be wireless.
 - (5) The bleachers should be motorized in the main gymnasium. ABSS has worked with Seating Safety Solutions out of Liberty.
- d. Auditorium
 - (1) A kiln shall be provided.
- e. Science
 - (1) Gas hookup requirements will need to be determined by Curriculum.
- f. Building Materials
 - (1) Roofing will be standing seam metal roofs where at all possible.
 - a) Moseley pointed out that the size of a high school can be problematic for all standing seam but will look to minimize any low sloped areas and only utilize them where the building massing requires.
 - (2) Exterior doors shall be FRP.
 - (3) Floor finish
 - a) At a later date, Moseley will tour ABSS through a school with integrally colored polished concrete. This flooring is an option for a cost effective, low maintenance floor finish in corridors and other high traffic areas.
 - b) VCT in classrooms.
- 3. Energy Efficiency Goals
 - a. Moseley will pursue Energy Star.
 - b. Moseley will also connect ABSS with the Weidt Group to discuss if their assistance could benefit the project for tax credits.
- 4. Electrical/ Technology
 - a. General
 - (1) One electrical service for whole building.

MEMORANDUM OF CONFERENCE

RE: ABSS New High School

Page 3

8/7/2019

- (2) Coordinate IDF & MDF room and rack layouts with owner.
- (3) No occupancy sensors in IDF & MDF rooms.
- b. Standard classroom power & data layout
 - (1) No AV connections, will be using mobile boards
 - (2) Charging stations
 - a) Local USB charging outlets in strategic locations
 - b) Mobile charging stations – every classroom
 - (3) Possibility of having boxes & raceway for future data drops on each wall
 - (4) No wireless printing
 - (5) 2 drops in each classroom, one at teacher's station, one at opposite wall
 - (6) Don't need separate drop for IP phones
 - (7) 15' service loop within classroom for all data cables
 - (8) Standard receptacles within classroom, no particular layout.
- c. Fire Alarm & PA
 - (1) Separate PA & Fire Alarm systems do not combine.
 - (2) Verify voice zones with owner
 - (3) Fire alarm wiring in conduit, PA wiring in cable tray down corridor.
 - (4) Current fire alarm system for district is Notifier NSF 640.
 - (5) Current PA system for district is Bogen Multi-com
 - (6) Allowance for BDA
- d. Data
 - (1) Electrical contract to provide all boxes, raceways, cable, terminations, racks, patch panels. District to provide network switches, UPS (where required)
 - a) Category 6A cable for all
 - b) Fiber connection type will need to be coordinated with Todd Fitch – Network Engineer
 - (2) Cable tray throughout corridors for all low voltage cable
 - (3) Wireless access points
 - a) District will be providing Wave 2 access points
 - b) Access points in every room
 - (4) Fiber in conduit or interduct, possibly look at Corning Freedom cable (no conduit/interduct required)
 - (5) Clock system desired – Sapling wireless clocks
- e. Lighting
 - (1) Control
 - a) Site/Exterior
 - (1) LED parking lot lights – crunch numbers on lease/own
 - (2) BMS Controlled:
 - (a) Corridors
 - (b) Site/Exterior

MEMORANDUM OF CONFERENCE

RE: ABSS New High School

Page 4

8/7/2019

- (c) Freezer/Cooler
 - (d) Gen Alarms
 - b) Occ Sensors:
 - (1) Toilet rooms
 - (2) Corridors
 - (3) Offices
 - (4) All others required by energy code
 - (2) Theatrical (Braudie Fitch will recommend who to use for theatrical design)
 - a) ETC lighting
 - b) House dimmable
 - c) DMX
- f. Generator back up for:
 - (1) Life safety
 - (2) Assembly spaces
 - (3) Coolers/Freezers
- g. Provide Honeywell motion sensors/system
- h. Provide security drawings separately from electrical for separate bid package.
- i. Provide AV drawings for sound systems throughout building.

5. Mechanical

- a. System Type
 - (1) 4-Pipe Variable Air Volume System
 - a) Terminal Units will be shut-off type, no fan-powered boxes.
 - b) Air-cooled chillers and condensing gas boilers
 - c) Air handling units will be located on mezzanines.
 - (2) Separate systems in gymnasium, cafeteria, kitchen
 - a) These systems will be tied into the chilled water and hot water systems.
 - (3) Admin Area System
 - a) Consider variable refrigerant flow (VRF) in this area. Review cost implications prior to final decision.
 - (4) Kitchen make-up air unit will have heat only.
- b. Preferred manufacturers for basis of design
 - (1) Carrier will be basis of design for major equipment.
 - (2) Mitsubishi will be basis of design for mini-split air conditioners.
 - (3) Pumps can be Bell & Gossett, Taco, or Armstrong.
 - (4) Weil-McLain will be basis of design for boilers.
- c. Natural gas availability – Still to be determined.
- d. Preferred controls vendor or any other controls standards
 - (1) Automated Logic will be basis of design for controls.
 - (2) No workstation needed on site. Tie into their central system.
 - (3) BAS monitoring for coolers and generators.

MEMORANDUM OF CONFERENCE

RE: ABSS New High School

Page 5

8/7/2019

- (4) BAS monitoring of electrical usage and phase loss.
- (5) BAS monitoring of gas meter and domestic water meter.
- e. Data rooms
 - (1) Mini-split systems are acceptable in lieu of computer room air conditioners
 - (2) Temperature will be monitored by the BAS.

6. Fire Protection

- a. Flow test needed.

7. Plumbing

- a. Fixtures
 - (1) Preferred manufacturers
 - a) Typically, American Standard with Zurn flush valves
 - (2) Floor-mounted fixtures will be provided.
 - (3) Manual flush valves and sinks.
 - a) No up/down operation on valves.
 - (4) Plumbing chase layout
 - a) Provide door into plumbing chase for access with the janitor's closet at the front.
- b. Backflow preventer location will be outside.
- c. Bottle fillers on water coolers

The above information is the writer's recollection of the discussions and decisions at the meeting. Should there be any additions or corrections, please notify the writer within two weeks of distribution for correction.

NOTES BY:



Ashley P. Dennis, AIA
Vice President

DISTRIBUTION: As indicated by (*) above, also:
Dr. Todd Thorpe

MOSELEYARCHITECTS

August 8, 2019

MEMORANDUM OF CONFERENCE

<u>PROJECT</u>	Alamance-Burlington New High School
<u>ARCHITECT'S PROJECT NO.</u>	591568
<u>DATE AND LOCATION</u>	Wednesday, July 31, 2019 at ABSS Central Office Facilities Conference Room
<u>PRESENT</u>	<p><u>For Alamance-Burlington School System (ABSS)</u></p> <ul style="list-style-type: none">* Dr. Todd Thorpe, Assistant Superintendent for Operations* Mr. Jimmy Russell, Facilities Project Manager* Dr. Angela Bost, Assistant Superintendent for School Improvement <p>Ms. Robin Bowers, Director of Career and Technical Education Dennis Frye, Executive Director of Technology Ms. Revonda Johnson, Executive Director of Secondary Leadership Ms. Teresa Faucette, Principal - Southern Alamance HS</p> <p><u>For Moseley Architects</u> Ashley Dennis, Managing Principal Nick Lash, Project Manager</p>

DISCUSSIONS AND DECISIONS.

The purpose of the meeting was to determine the program spaces needed for the new high school:

1. No lockers shall be provided minus athletic lockers.
2. Standard classrooms for 28 students on a 4-block schedule.
3. New High School will be designed for 1250 student capacity and core spaces sized for 1500 students.
4. Classroom Groupings
 - a. Departmental clustering is desired.
 - b. There is a desire to have the ability for 9th grade Academy, but do not want strict isolation of these spaces.
5. ESL will need a designated classroom.
6. ISS spaces should not be large and does not need a designated toilet room.
7. EC program
 - a. OCS & MU classrooms needed, but not number determined during the meeting.

MEMORANDUM OF CONFERENCE

RE: Alamance-Burlington New High School

Page 2

August 8, 2019

- b. A separate meeting will need to be set up with Keisha Banks, Executive Director of Exceptional Children.
- c. 1 psychologist office shall be provided adjacent to the EC suite, not within Guidance.

8. General Classrooms

- a. The following classroom counts are for Southern Alamance High School with is approximately 1500 students. Moseley will make adjustment per 1250 students and provide the program to staff for review.
 - (1) 10 English
 - (2) 10 Social Studies
 - (3) 10 Math
 - (4) 4 Foreign Language.

9. Science

- a. 6 labs - 3 Biology & 3 Chemistry (class/lab) - shared prep
- b. Flex Lab - prep (preferably off the corridor)
- c. 4 classrooms - science (800 sf) STORAGE AROUND WALLS

10. Arts

- a. 2 visual arts rooms w/ kiln room
- b. 1 chorus
- c. 1 band room
 - (1) Associated practice rooms for 7-8 people
 - (2) Band office
 - (3) Marching band storage
- d. Dance room w/locker rooms (men's & women's)
- e. Auditorium
 - (1) There was a request to increase the seating capacity from the DPI recommendation of 500-600. 1500 would be ideal.
 - (2) Moseley questioned if a class could be taught on stage. Possibility for Theater class.
 - (3) Providing dressing rooms off stage and toilet room.
 - (4) There is not a need for a scene shop.

11. Media Center (Learning Lab)

- a. The desire for the media center is less stacks and more spaces for separate types of learning.

MEMORANDUM OF CONFERENCE

RE: Alamance-Burlington New High School

Page 3

August 8, 2019

- (1) Collaborative Learning – Glass Box conference rooms
- (2) The teacher's workroom size can be minimized or eliminated since there will be workrooms on each classroom wing.
- (3) Space for STEM learning along with storage for robotics or drone work.
- (4) Outdoor space for flexibility to work outside or inside on projects.
- (5) Space to display art.
- (6) A small office and workroom for the media specialist.
- (7) Technology space for storage and repair of devices. There could be a transaction counter but should open to corridor not media center.
- (8) Prefer the circulation desk to be modular and not built-in.
- (9) Ability to move furniture to provide a space for 100 people for staff meetings.
- (10) Provide adjacency to a sink whether that be in the workroom or connected to another space with a sink. This would be for food service.
- (11) MDF room should be located at the media center.

12. CTE - (Not final)

- a. The spaces listed below are what is currently at Southern Alamance HS. Bost will provide a revised CTE program for the new high school following the meeting.
- b. Cluster CTE spaces together. Preferably on lower level.
 - (1) Carpentry
 - a) Classroom must be separate from shop for compliance.
 - b) Needs an office
 - c) Provide plenty of lumber storage as well as easy access for deliveries.
 - (2) Business
 - a) 2 labs (computer lab functionality) - zonally proximate (IDF)
 - b) 1 lab - Marketing
 - c) Business classroom
 - d) 2 labs - Child Nutrition/Foods
 - (1) 5 small kitchen and space to present
 - (2) Classroom space within
 - (3) Storage with washer/dryer
 - (3) Interior Design classroom

MEMORANDUM OF CONFERENCE

RE: Alamance-Burlington New High School

Page 4

August 8, 2019

(4) Health Sciences

- a) Classroom for 25 students
- b) 1 Health Sciences Lab
 - (1) Storage space with access to washer/dryer (scrubs/sheets)
 - (2) 10 students - 2 sinks (hot water)

(5) Horticulture

- a) 2 horticulture classroom - small animals
- b) Lab - Ag mechanics - welding booths on one side

13. Dining

- a. 3 lunches
- b. There is a desire for it to be adjacent to Media Center.
- c. Also, would like access to the outside with picnic tables.

14. Health/PE

- a. Coaches office in both locker rooms w/toilet room
- b. Weight room
- c. Auxiliary Gym
 - (1) There is no designated wrestling room within the program. There was a request if a wrestling room could be provided.
- d. Concessions will only be popcorn and pizza brought in. No food will be prep in the space.

15. Administration Suite

- a. Principal's office – no attached toilet room.
- b. 3 Assistant Principals dispersed throughout school
- c. 15-person conference room
- d. Bookkeeper
- e. Data Manager/Attendance
- f. Reception area to accommodate 2 secretaries
- g. The SRO office should not be at the front door.
 - (1) Office should be located where students have access.
- h. Nurse's Office
 - (1) Sized to meet with parent and kid

MEMORANDUM OF CONFERENCE

RE: Alamance-Burlington New High School

Page 5

August 8, 2019

- (2) Separate area for sick bed/storage/sink
 - i. Teacher mail distributed to hallway workrooms
 - j. 1 Testing room with room for a worktable and storage.
16. Guidance Suite
- a. Located near media center
 - b. 3 guidance counselor offices
 - c. 1 social worker
 - d. 1 Career Development Coordinator
 - e. 1 - Community college/ ACC coordinator
 - f. 1 - graduation coach
 - g. 1 - student records
 - h. 1 - conference room
 - i. 1 - waiting/reception w/ space for computers for students to fill out forms
17. Student Space/ Offices
- a. Located on lower level
 - b. Provide storage for student council and prom committee.
18. Staff Support Space
- a. Provide on every wing
 - b. 1 space for workroom/lounge/breakroom
 - c. 1 meeting room
 - d. Book storage.
19. Collaborative Space/ Extended Learning Labs
- a. These will be incorporated into the classroom wings.
20. Custodial
- a. Separate meeting will be coordinated with the contract company to establish their needs.

The above information is the writer's recollection of the discussions and decisions at the meeting. Should there be any additions or corrections, please notify the writer within two weeks of distribution for correction.

MEMORANDUM OF CONFERENCE

RE: Alamance-Burlington New High School
Page 6

August 8, 2019

NOTES BY:

A handwritten signature in black ink, appearing to read "Ashley P. Dennis", with a horizontal line extending from the end of the signature.

Ashley P. Dennis, AIA
Vice President

DISTRIBUTION: As indicated by (*) above, also: