

# EDUCATIONAL SPECIFICATION

## GLADES CENTRAL HIGH SCHOOL

Grades 9 – 12  
Academy Program Modification  
Academy Student Stations: 164



**Mr. Tom Lynch, Chairman**  
**Mr. Bill Graham, Vice Chairman**  
**Monroe Benaim, M.D.**  
**Mrs. Paulette Burdick**  
**Mr. Mark Hansen**  
**Dr. Sandra Richmond**  
**Debra Robinson, M.D.**

**Arthur C. Johnson, Ph.D.**  
**Superintendent**

**March 2005**

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NSF throughout document refers to Net Square Feet.

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**INTRODUCTION**

These Educational Specifications are intended for use as a planning guide by architects and others responsible for developing physical facilities in Palm Beach County. The general concept embodied in the specifications is to provide general and adequate details for proposed spaces while leaving ample flexibility for creativity and options in design by the architects.

Philosophy and Goals of the School Board of Palm Beach County (SBPBC) are provided as general directions for programs in the School District and are followed by a listing of General Considerations. The facility list is intended to be a summary of the spaces to be provided, but is sufficiently flexible to accommodate design requirements and compatibility with adjacent space.

Specifications for the various program areas include a common listing of informational categories within each of the areas. Specific information relative to each particular area is included under various headings as follows:

- I. Program Philosophy
- II. Program Goals
- III. Program Activities
- IV. Organizational Nomenclature
- V. Innovations, Experimental Ideas, Other Planned Uses
- VI. Justification for Variance from S.R.E.F.
- VII. Program Facilities List
- VIII. Program Furniture and Equipment
- IX. Special Considerations

The graphic representations of Space Relationships are intended only to establish adjacencies and not to set design. Spaces shall be arranged for the various program areas in a configuration compatible with traffic control, site needs and the following considerations:

- 1. Facilities shall be as functional as possible; that is, they shall be organized in a manner responsive to educational programming requirements in an orderly economical way.
- 2. Facilities shall be as responsive as possible to long-term maintenance goals. The architect shall endeavor to produce a product with the lowest possible life cycle cost.
- 3. Facilities shall be as vandal-resistant as is possible within realistic budget constraints.
- 4. Facilities shall be as aesthetically pleasing as possible, considering neighborhood, shape, materials, colors, etc.
- 5. Facilities shall be designed to provide adequate student movement (circulation) without unnecessary waste.

Special attention is directed to planning for community utilization of the plant and campus, maximum energy conservation and capital budget restraints.

## PHILOSOPHY AND GOALS

### I. PROGRAM PHILOSOPHY

The Board's philosophy is to provide an educational system which is instructionally sound and environmentally stimulating enough to attract and maintain high-quality professional, technical and administrative employees. This system is designed to earn the respect of Palm Beach County, the community, state and nation.

The Board believes that successful implementation of its philosophy is highly dependent upon a positive, active, working partnership which includes the Board, administrators, teachers, staff, students, parents, community, business and industry. For this reason, the support requirements for this project were developed by a participatory process involving committees of educators, the Department of Secondary and Career, and various departments of the School District of Palm Beach County.

### II. PROGRAM GOALS

**A. Student Goals** - Students shall acquire, to the extent of their individual physical, mental and emotional capacities, a mastery of the basic skills required in the curriculum.

1. **Communication and Learning Skills** - All students shall be provided an opportunity to do the following:
  - a. Develop and apply basic skills in reading, writing, speaking, viewing and listening.
  - b. Gain a general education in broader fields of language arts, social studies, science, science, mathematics, humanities and vocational education.
  - c. Develop a desire for learning.
  - d. Develop a capacity for self-evaluation and self-direction.
  - e. Examine, analyze, evaluate and utilize various kinds of information.
2. **Human Relations** - All students shall be provided an opportunity to do the following:
  - a. Develop a pride of accomplishment and a feeling of self-worth.
  - b. Learn to respect and get along with people.
3. **Citizenship Education** - All students shall be provided an opportunity to do the following:
  - a. Develop good character and self-respect.

- b. Be responsible citizens.
  - c. Participate in democratic experiences and processes.
4. **Occupational Interests** - All students shall be provided an opportunity to do the following:
- a. Develop a positive attitude toward work.
  - b. Develop respect for the dignity of all occupations.
  - c. Acquire information needed for making appropriate job selections.
  - d. Develop the ability to use information as it relates to a particular vocation.
5. **Home and Family Relationships** - All students shall be provided an opportunity to do the following:
- a. Broaden an appreciation of the family as a social institution and as a basic unit of society.
  - b. Acquire skills and attitudes for management of family resources.
  - c. Acquire and understand the skills of family living.
6. **Mental and Physical Health** - All students shall be provided an opportunity to do the following:
- a. Develop good health habits and an understanding of the conditions necessary for maintenance of physical and emotional well being.
  - b. Acquire a knowledge of basic psychological and sociological factors affecting human behavior and mental health.
  - c. Develop competence for adjusting to changes.
  - d. Recognize and work to solve environmental health problems.
7. **Aesthetic and Cultural Appreciation** - All students shall be provided an opportunity to do the following:
- a. Develop an understanding and appreciation of human achievement in natural sciences, social sciences, humanities and the arts.
  - b. Broaden interests and prepare for productive use of leisure time.
  - c. Develop skills and creative abilities for self-expression.

**B. Management Goals**

1. **General Management** - The SDPBC shall refine, implement and utilize management practices which will provide the following:
  - a. Planning and evaluation programs which will ensure accurate and adequate information for decision-making.
  - b. Administrative procedures which ensure that program planning, budgeting and evaluation systems are integrated and cyclical in nature.
  - c. Information services that promote timely acquisition of accurate information regarding district policies, procedures and activities which fulfill the needs of the district and the public.
  - d. Administrative and Instructional support for "school-based management" procedures and techniques.
  - e. System-wide support services for functions, processes and programs.
  - f. Continuing development, refinement, implementation and evaluation of instructional materials, processes and components of the curriculum.
  - g. Flexible organizational structure which clearly defines and delineates authority, responsibility and accountability.
  - h. Fiscal integrity in budgeting and business affairs.
2. **Personnel Management** - The schools district will develop and maintain the following:
  - a. Practices and programs to recruit the best qualified personnel for all positions.
  - b. Programs to orient all employees properly to their job responsibilities, operation and organization of their units, and organization of the school system.
  - c. Staff Development Programs to update employees in their chosen fields and to enhance their professional and career growth.
  - d. Develop programs to teach administrators at all levels how to achieve excellence in managing people, including performance, planning, evaluation and counseling.
  - e. A system to identify high potential employees and their readiness status to qualify for higher career positions within the SDPBC.
  - f. Practices and programs to attain effective affirmative action.

- g. Practices and systems to establish realistic position descriptions for each level and equitable compensation for those levels.

**Facility List by Areas**  
**Glades Central High School**  
**Grades 9 - 12**  
**Academy Program Modification**  
**Academy Student Stations: 164**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Existing Sq. Ft. Total	Proposed		Existing Stu. Sta. Total
			Sq. Ft. Per Unit	Sq. Ft. Total		Stu. Sta. Unit	Stu. Stat. Total.	
<b>AGRISCIENCE</b>								
1	Existing Large Agriculture laboratory	1,600			2,925			20
1	Existing Vocational Related Classroom	675			527			
1	Existing Material Storage	395			173			
2	Existing Student Storage / (Tool Storage)	310			409			
1	Flammable Storage	125			73			
1	Storage Machinery	1100			1009			
1	Existing Vocational Lab Support Space				190			
1	Existing Vocational Lab Support Space				290			
1	Reference Room	100						
2	Lockers, Restrooms	450	225	450				
1	Existing Teacher Planning				108			
1	Existing Staff Restroom				54			
	<b>Subtotal</b>	<b>4,755</b>		<b>450</b>	<b>5,758</b>			
<b>Other Spaces</b>								
1	Outside Greenhouse	800			804			
1	Outside Storage			300				
	<b>TOTAL</b>	<b>5,555</b>		<b>750</b>	<b>6,562</b>			<b>20</b>
<b>CRIMINAL JUSTICE</b>								
1	Laboratory			1,300		20	20	
1	Material Storage			395				
1	Related Space			675				
	<b>TOTAL</b>			<b>2,370</b>			<b>20</b>	
<b>HEALTH OCCUPATIONS</b>								
1	Health Occupations Laboratory		1200	1200			20	
1	Dispensary		135	135				
1	Material Storage		155	155				
1	Project Storage		150	150				
1	Related Classroom		675	675				
	<b>Subtotal</b>			<b>2,315</b>			<b>20</b>	



**DRAFT SCHEDULED FOR MARCH 2005 BOARD .....Exhibit A**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Existing Sq. Ft. Total	Proposed		Existing Stu. Sta. Total
			Sq. Ft. Per Unit	Sq. Ft. Total		Stu. Sta. Unit	Stu. Stat. Total.	
1	Practical Nursing Laboratory		3,300	3,300		20	20	
1	Dispensary		135	135				
1	Laundry (from Reference)		100	100				
1	Material Storage		395	395				
2	Nursing Station (from lockers, showers)		225	450				
1	Related Classroom/Computer Laboratory		675	675				
1	Project Storage		310	310				
1	Restroom with shower (from allotment)							
	<b>Subtotal</b>			<b>5,365</b>			<b>20</b>	
	<b>TOTAL</b>			<b>7,680</b>			<b>40</b>	
	<b>INFORMATION TECHNOLOGY</b>							
3	Computer Labs		1,460	4,380		20	60	
3	Material Storage		155	465				
3	Project Storage		150	450				
	<b>TOTAL</b>			<b>5,295</b>			<b>60</b>	
	<b>ENGINEERING (Project Lead the Way)</b>							
1	Engineering			3,240		24	24	
1	Technology Resource			800				
1	Material Storage			90				
1	Material Storage			395				
1	Project Storage			310				
1	Tool Storage			310				
	<b>TOTAL</b>			<b>5,145</b>			<b>24</b>	
	Staff Restrooms (as required by code)			66				
	Student Restrooms (as required by code)			246				
	Custodial (as required by code)			180				
1	Teacher Planning			400				

The existing facilities will be analyzed by the project architect to determine appropriate usage of the site and buildings for necessary renovations and remodeling to meet SREF size standards, ADA requirements and other code issues.

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**GENERAL CONSIDERATIONS**

Use the following documents, as a minimum, in facility design, the latest edition of the Florida Building Code (FBC) with latest revisions, the Florida Fire Prevention Code (FFPC), the SDPBC Education Specification, District Master Specification (DMS), District Design Criteria (DDC) and State Requirements for Educational Facilities (SREF)

- A. **Security** - The design shall comply with the DDC – Architectural and Civil.
- B. **Flexibility** - Consider flexibility to allow for future program changes and expansions of the school plant.
- C. **Construction Techniques** - Consider fast and economical construction consistent with long-range maintenance and flexibility requirements of a permanent school plant. Refer to the DDC - Architectural.
- D. **Heating, Ventilating and Air-Conditioning (HVAC)** – Design the system(s) in accordance with the DDC – Mechanical and the related DMS sections in Division 15.
- E. **Plumbing** - Design the system(s) in accordance with the DDC – Plumbing and the related DMS sections in Division 15.
- F. **Building Fire Protection** - Design the system(s) in accordance with the DDC – Plumbing and the related DMS sections in Division 15.
- G. **Windows** – Provide windows in accordance with the DDC - Architectural.
- H. **Floors** - Provide floors in accordance with the DDC - Architectural.
- I. **Walls** - Provide walls in accordance with the DDC - Architectural.
- J. **Roof** - Provide roofs in accordance with the DDC - Architectural
- K. **Corridors and Student Commons** - Corridor shall comply with the Florida Building Code, DDC and DMS.
- L. **Sound Treatment** - Acoustically-treated walls and ceilings shall be provided as necessary for the intended use of the space. Refer to the DDC – Architectural.
- M. **Hot Water** - Hot water shall be provided as indicated and per code. Refer to the DDC - Mechanical and Plumbing and DMS.
- N. **Lighting** - Classroom lighting shall be controlled with alternate switching of light fixtures. Provide lighting in accordance with the DDC – Electrical and DMS.
- O. **Electrical** - Provide Electrical System in accordance with the DDC – Electrical and DMS.

- P. **Student Toilets** - Soap dispensers shall be liquid type provided and installed by the contractor. Paper towel dispensers and toilet paper dispensers shall be continuous metal jumbo roll type provided and installed by the contractor. Follow the DDC – Architectural and Plumbing for locating, designing and equipping student toilet facilities.
- Q. **Entrances** – Entrance shall comply with the requirements of the DDC – Architectural.
- R. **Lockers** - Lockers shall be located in air-conditioned corridors. Refer to DMS.
- S. **Clock and Bell System** - GPS master satellite clock system (wireless) shall be utilized throughout the facility and provided and installed by the contractor. Bell system shall have automatic and manual operation.
- T. **Intercommunications System** - Provide two-way intercom system in accordance with the DDC - Electrical.
- U. **Instructional Television System** – Provide ITV system in accordance with the DDC – Electrical and DMS sections in Division 16.
- V. **Color/Finishes** - Harmonizing colors shall be used to enhance the design of the plant. The architect shall submit colors for review and approval by the SDPBC Department of Program Management. The exterior of the buildings shall use a maximum of three (3) different colors and the interior of the buildings shall use a maximum of four (4) different colors with one of the four interior colors serving as the accent color for the instructional space. Exterior materials and coatings shall be graffiti resistant and easily cleaned to the maximum extent practical. The architect shall submit finishing schedules and mill work for review and approval by the SDPBC Department of Program Management.
- W. **Display Case** - A built-in recessed display case with tackable backboard shall be located in the entrance foyer, music area and art area and media center. A built-in trophy case with tackable backboard shall be located in gymnasium and auditorium. Provide safety glass. The recessed display case shall be 6’W x 4’H and 36” off the floor.
- X. **Communications (Voice and Data)**- Provide Communication systems in accordance with the DDC - Electrical.
- Y. **Safety** - Provide safety devices in accordance with the DDC, DMS and FBC.
- Z. **Site Fire Protection** - Refer to the DDC, DMS, FBC and FFPC.
- AA. **Automobile Parking** - Provide parking in accordance with traffic control section, DDC – Architectural and Civil. Visitor parking shall be provided near the entrance to the administrative suite.
- AB. **Water Outlets** - Provide hose bibs in accordance with the DDC - Plumbing.

- AC. **Potable Water** - Systems shall be designed in accordance with the DDC – Civil and Plumbing.
- AD. **Pavement, Site Improvements** - Provide all pavement, markings, signage and other site improvements in accordance with the DDC - Civil.
- AE. **Sanitary Sewer** - Systems shall be designed in accordance with the DDC – Civil.
- AF. **Storm Water Drainage** - Systems shall be designed in accordance with the DDC - Civil.
- AG. **Irrigation Water** – System shall be designed in accordance with the DDC – Civil and SFWMD.
- AH. **Structural** - Systems shall be designed in accordance with the DDC - Structural.
- AI. **Bulletin Boards** - In addition to any bulletin boards specified in departmental specifications, there shall be located in all of the corridors and/or student common area the following: (a) for general administrative, provide eight lineal feet; (b) for student activities, eight lineal feet; (c) for general faculty, eight lineal feet; (d) for interscholastic activities, eight lineal feet; (e) for music, eight lineal feet; (f) for interdepartmental use, eight lineal feet. Bulletin (tack) boards shall not be less than 36" vertical measurement.
- AJ. **Ceiling Heights** - Ceiling height shall be in accordance with the DDC - Architectural.
- AK. **Crowd Control** - The design shall reflect good crowd control. Consideration shall be given to large groups that enter and leave the site at times of public and school events.
- AL. **Energy Conservation** - The building and its systems shall be designed in accordance with the DDC – Mechanical.
- AM. **Community School** - The general plan and campus design shall be arranged to permit and facilitate use of all appropriate school facilities by community agencies when these spaces are not in use for the regular school program. Community school considerations include ready access from parking lots to all athletic and recreational facilities, meeting rooms, music facilities, media center, cafeteria and community school coordinator's office. Offices(s) shall be located near the parking lot with adequate lighting and natural surveillance.
- AN. **Exterior Building Materials** - Major exterior building materials shall be fully documented in the design phase of project development for review and approval by the SDPBC Superintendent or his/her designee. Exterior materials and coatings shall be graffiti resistant and easily cleaned to the maximum extent practical. Refer to the DDC – Architectural.
- AO. **Instructional Technology** - Provide conduits, wiring, data outlets and receptacles for computer network requirements. Provide spaces and special air-conditioning for computer- related electronics. Refer to the DDC.

- AP. **School Site and Play Fields** - The school site and play fields shall be designed in accordance with the DDC – Architectural and Civil.
- AQ. **Working Heights** - Provide built-in equipment and furnishings in accordance with the DDC - Architectural.
- AR. **Ventilation** - Ventilation shall be designed in accordance with the DDC - Mechanical.
- AS. **Program Furniture and Equipment** - Program furniture and equipment list, in this document, is a design guide for determining space requirements and it is not intended as an ordering guide. Use existing furniture and equipment where possible.
- AT. **Natural Gas** - Refer to the DDC - Plumbing.
- AU. **Design Notebooks** - Refer to the DDC - Mechanical.
- AV. **Communications Room** - Every facility shall have one Communication Equipment Room (CER) and several Communication Closet Rooms (CCR) as necessary to comply with the DDC – Electrical and Mechanical.
- AW. The Architect/Engineer shall request a clarification from the Senior Project Administrator (SPA) of any conflicts between the Educational Specification, DDC or DMS.
- AX. For high schools, contractor to provide a lighted double sided marquee/school sign, 9’x12’ in size, with adequate electrical service stubbed out for future wireless LED message area upgrades.
- AY. Refer to the DDC – electrical and DMS with regards to ceiling projectors raceway system. Contractor to provide ceiling projectors raceway system with all necessary wiring and properly supported projector mounting brackets in all instructional spaces and other designated areas. Obtain the latest detail of installation and specifications from the District’s Network Services Department.
- AZ. Those high schools designed by the Emergency Operation Center will be Hurricane Shelters.
- BA. Contractor to provide and install wall mounted pencil sharpeners and flag pole holders with proper backing in all necessary areas. Contractor to provide and installed AV screens and brackets with proper backing in all necessary areas. Provide proper backing for all mounted equipment where necessary.
- BB. Each school center shall a lightning detection device.
- BC. All built-in counters shall be wire management holes (grommets) to service telephones and computer hook-ups.
- BD. When possible, the “head-in” equipment shall be located in the production room in the

Library Media Center. The equipment should not be located in the control room of the CCTV studio.

- BE.** Schools under modernization and/or comprehensive addition shall have the interior signage comply with the building and room numbering of the School District's guidelines. Room names and numbers on signage shall be coordinated with SDPBC Interior Design Coordinators.
- BF.** Contractor to provide a 30' high flagpole with two complete rope systems. The flagpole shall be located near the main office/administration.
- BG.** Refer to the DDC – electrical and DMS with regards to conduit and junction box for sound field enhancement system.
- BH.** Classrooms, instructional areas and other designated areas shall be equipped with built-in multimedia cabinets, provided by the contractor, for TV, LCD, DVD/VCR, and other multi-media equipment. The multimedia cabinet shall be approximately 48" in height with the capability to have a 27" TV sit on top of the cabinet. The multimedia cabinet shall include lockable doors with adjustable shelving for equipment and grommets for wire management. The cabinet shall be located on the teaching wall.

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**GENERAL SECURITY CONSIDERATIONS**

- A. Meet with SDPBC Department of School Police at first stage, site and building layout development, to discuss project specific security issues.
- B. The area for loading/unloading of students shall be designed for easy supervision with no mixture of pedestrian and vehicles.
- C. Open parking areas shall have good natural surveillance. Provide a fenced staff parking area that can be locked during the day where local conditions warrant.
- D. Site access shall consist of a primary road and secondary access in the event the primary road is blocked.
- E. School sites shall have perimeter security fencing preventing access to walkways and courtyards when facility is not occupied, but allow for public use of exterior athletic facilities. Design exterior doors to prevent unauthorized entry by minimizing key locks and hardware on doors which would not be used for the purpose of essential entry but are installed for emergency egress.
  - 1. Doors which are determined to be essential entry shall be provided with key access and include card access control and hardware as per current SDPBC policy, guidelines and the project specific plan review process.
  - 2. Entire perimeter of site shall be fenced or wall barriered and gated to a minimum height of six (6) feet. Provide the delivery/receiving/service entry gates(s) with electric latching/lock hardware and all associated hardware to allow the control of it from the card access system.
  - 3. Create an interior perimeter barrier so that all open area students and staff commons and their thoroughfares, i.e. courtyards, areas between buildings, portable classrooms, PE fields, etc. are blocked from entering except through an access controlled main public entry. Create a structurally mounted set of metal entry doors in the interior perimeter barrier to become the focal point of all public entry. These doors shall be located in the entry thoroughfare between the visitor parking area and the administration reception area. At the public entry, provide card access, video surveillance; remote intercom and electric controlled lock hardware as per current SDPBC policy, guidelines and the project specific plan review process. All other egress points through this open area interior perimeter barrier shall have the same type of structurally mounted metal entry doors. No fence gates allowed.
- F. Use maze-type of entry system to restrooms where appropriate, i.e., gymnasium. Do not use maze-type of entry for exterior locations.
- G. Bicycle parking compound shall be located in an area with good natural surveillance and have an 8' fence. Provide racks to which bicycles can be locked. Should be visible from office staff or classroom windows.
- H. When designing courtyards, consider physical division of space, i.e. benches, planters,

to avoid congregation of large groups of students and to allow smooth flow of traffic. Position amenities to create multiple access and passageways. Planters shall not be placed in such a way as to allow its contents to block clear vision of common areas and courtyards. Limit the heights of all trees and shrubbery that are planted between the buildings and all thoroughfares, congregate areas, bike and auto parking spaces, courtyards, portables, entry/exit points throughout the interior perimeter barrier, playfields, etc. to not exceed three feet (3'), for a distance of fifty feet (50'). Consideration should be taken when locating landscaping to assure that it will not block lighting.

- I. Locate teacher planning areas throughout the campus to provide supervision for potential problem areas. Acceptable locations are at ends of buildings and center of hallways.
- J. Provide zoned lighting to allow for security during community school activities at night. Consider use of motion detector lights in isolated areas.
- K. Design roofs without obstructions that could conceal persons from view. Roof access shall be properly secured and lockable.
- L. Provide two (2) KNOX Box for emergency key access to the site and buildings(s), one for school police and one for the fire department. Coordinate with local fire department and district personnel.



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**SITE DEVELOPMENT**

- A. All site plans shall comply with SDPBC Technical Requirements Manual for Site Plans.
- B. Refer to the District Design Criteria (DDC).
- C. Landscaping plan shall contribute to the development of a balanced and harmonious appearance of the educational complex. Landscaping shall be based on surveys of existing plants on the site and a palette of species of plants native to the vicinity. Plantings shall be site specific with special consideration given to minimizing supplemental irrigation systems, energy efficiency and maintainability of the designed vegetation systems, from installation to maturity. Supplemental irrigation systems to be used shall provide for total coverage of landscape areas. Where practical, minimum plant sizes and maximum spacing shall be used. Landscaping shall be in compliance with State Requirements for Educational Facilities Guidelines.

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**TRAFFIC CONTROL**

The following traffic related activities occur on the school site:

1. Approximately, 30 school buses will enter and exit the site at the beginning and end of each school day.
2. Approximately, 270 staff will enter and exit the site daily.
3. Service and visitor vehicles will enter and exit the site daily.
4. Private vehicles of spectators attending extra curricular activities will enter and exit the site periodically.

Proper signage should be included to delineate each area. Signage and bumpers for parking spaces shall be provided by the contractor.

Specific consideration shall be given to the following:

1. Parking spaces shall be conveniently located for approximately (235) staff, (565) students, (25) visitors and (40) service personnel. Ten of these to be convenient to kitchen. Parking locations shall be located on-site and/or off-site.
2. Visitor parking shall be provided near the administrative suite and will naturally lead to the administrative suite reception entry.
3. A fenced parking area with lockable gates for bicycles shall be provided.
4. Student pedestrian traffic to play fields shall not cross any vehicular traffic area.
5. Refer to **District Design Criteria (DDC)**.

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**CUSTODIAL**

**I.      PROGRAM PHILOSOPHY**

Staff and students can expect a clean healthful environment in which to teach and learn. A properly organized and trained custodial staff has the ability to ensure the sanitation and regular cleaning of any facility, if their cleaning program is supported through the cooperation of the entire staff and student body. Custodians are allocated based on the size of the school (square feet) in sufficient numbers to maintain the cleanliness of the facility and care must be exercised that cleaning is their primary function. Redirection of the custodial staff to non-cleaning functions can severely impact the cleanliness of the facility. Staff and students help ensure the success of a custodial program through avoiding abuse of the facility. Our investment in school facilities is protected by initial provision and utilization of sufficient, effective equipment and personnel.

**II.     PROGRAM GOALS**

To provide a safe, sanitary and aesthetically acceptable learning and work environment through proper utilization of human resources, material, equipment and methods.

**III.    PROGRAM ACTIVITIES**

- A. Prepare and maintain adherence to work schedules to ensure regular, daily cleaning of the entire facility in accordance with "Instructional Handbook for Custodians."
- B. Maintain personal use facilities (restrooms, water fountains, shower rooms, sinks) in clean and sanitary condition to minimum standards of State Requirements for Educational Facilities (S.R.E.F.) regulations and in accordance with the "Instructional Handbook for Custodians."
- C. Assure that school grounds are kept free of litter and safety hazards.
- D. Report all hazardous conditions immediately.
- E. Observe and adhere to all safety and fire regulations regarding storage of material and maintenance and use of equipment.
- F. Maintain security of buildings during non-school hours.
- G. Report any items in facility in need of repair.
- H. Maintain custodial equipment so that it is clean and usable at all times.
- I. Use only authorized materials, methods and equipment to accomplish program goals.
- J. Maintain orderly storage and running inventory of custodial supplies and reorder as necessary for timely replacement.
- K. Attend training classes as provided.

**IV. ORGANIZATIONAL NOMENCLATURE**

Number of custodial staff determined as a function of Budget Department.

**V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES**

**Personnel** - Desired trend is to employ more competent custodians with better organized work schedules, in-service training and supervision. Total staff shall be able to read and write and must be able to communicate in English. Custodial foreperson must have demonstrated ability to perform in accordance with all requirements of the position.

**VI. JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

N/A

**VII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	Custodial (as required)			180		

**VIII. PROGRAM FURNITURE AND EQUIPMENT**

**A. Service Closet (per closet)**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1	X		Service sink, floor mounted (HW/CW).
1		X	Service Cart
	X		Built-ins (refer to special considerations)

**IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED**

Refer to **GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL.**

**A. Heating/Cooling/Ventilation** - As required to meet District Standards.

**B. Acoustical** - As required to meet District Standards.

**C. Floor** - As required to meet District Standards.

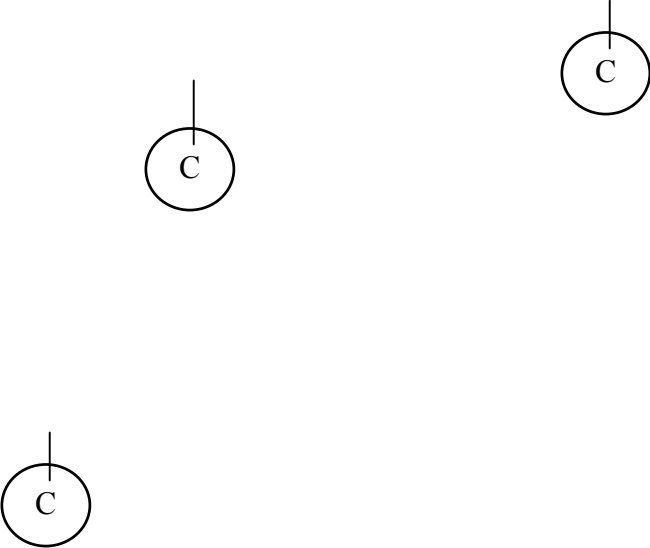
**D. Walls** - As required to meet District Standards.

**E. Ceiling** - As required to meet District Standards.

- F. **Lighting** - As required to meet District Standards.
- G. **Windows** - None, for security reasons.
- H. **Doors** - As required to meet District Standards.
- I. **Water/Plumbing Fixtures** - As required to meet District Standards.
- J. **Communications** - As required to meet District Standards.
- K. **Electrical** - As required to meet District Standards
- L. **Instructional Technology** - As required to meet District Standards.
- M. **Gas and Air** - As required to meet District Standards.
- N. **Safety** – As required to meet District Standards.
- O. **Fencing** - As required to meet District.
- P. **Service Drives** - As required to meet District Standards.
- Q. **Parking** - As required to meet District Standards.
- R. **Built-ins** -
  - 1. **Service Closets** – Provide adjustable, 12"D, steel shelving, on one wall, mid-wall to ceiling.
- S. **Other Considerations** – N/A

DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
**SPATIAL RELATIONSHIPS**

**Custodial**



C = Closets (as required by code)

**DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
RESTROOMS**

Provide staff restroom adjacent to teacher planning for shared disciplines.

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	<b><u>Restrooms</u></b> (adjust square footage for FACBC and parity requirements)					
	Student (as required by code)			246		
	Staff (as required by code)			66		

Although square footage allocation is per SREF, accommodations for size of spaces and numbers of spaces must be made for F.A.C.B.C. and parity.

DRAFT SCHEDULED FOR MARCH 2005 BOARD  
**TEACHER PLANNING**

**I. PROGRAM PHILOSOPHY**

Refer to overall. (Page 1)

**II. PROGRAM GOALS**

The goal is to provide teachers and staff with a comfortable and restful environment in which to mentally and physically relax during non-duty periods.

**III. PROGRAM ACTIVITIES**

The teacher planning areas shall provide spaces for the social and emotional development of teachers and staff. It also provides the opportunity for small group meetings and planning.

**IV. ORGANIZATIONAL NOMENCLATURE**

During the course of the day staff members will use the facilities. The number of people, at any one time, will vary.

**V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES - N/A**

**VI. JUSTIFICATION FOR VARIANCE FROM SREF REQUIREMENTS**

N/A

**VII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
1	Teacher Planning			400		

**VIII. PROGRAM FURNITURE AND EQUIPMENT**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
		X	Vending machine(s)
1		X	Copier
		X	Computers
		X	Printers
1	X		Tack board, 4' x 6'
1	X		Clock, battery
1		X	Activity Table
	X		Built-ins (refer to special considerations)
1	X		Mirror & vanity in staff restroom



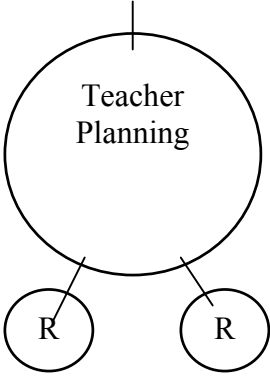
## IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED

Refer to GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL.

- A. **Heating/Cooling/Ventilation** - As required to meet District Standards.
- B. **Acoustical** - As required to meet District Standards.
- C. **Floor** - As required to meet District Standards.
- D. **Walls** - As required to meet District Standards.
- E. **Ceiling** - As required to meet District Standards.
- F. **Lighting** - As required to meet District Standards.
- G. **Windows** - As required to meet District Standards.
- H. **Doors** - As required to meet District Standards.
- I. **Plumbing Fixtures/Water** - As required to meet District Standards.
- J. **Communications** - As required to meet District Standards.
- K. **Electrical** - As required to meet District Standards.
- L. **Instructional Technology** - As required to meet District Standards..
- M. **Gas and Air** - As required to meet District Standards.
- N. **Safety** - As required to meet District Standards.
- O. **Fencing** - As required to meet District Standards.
- P. **Service Drives** - As required to meet District Standards.
- Q. **Parking** - As required to meet District Standards.
- R. **Built-ins** -
  - 1. Provide mirror and shelf over sinks.
  - 2. Full-length mirror in restroom.
  - 3. Provide teacher carrels with pedestal to accommodate ten (10) teachers with computer and printer. Provide lockable upper cabinets above teacher carrels. The teacher carrels shall have grommets for wire management.

S. Other Considerations – N/A

**DRAFT    SCHEDULED FOR MARCH 2005 BOARD**  
**SPATIAL RELATIONSHIPS**  
**Teacher Planning**



R = Restrooms, Staff

DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
**AGRISCIENCE**

**I.      PROGRAM PHILOSOPHY**

Today's society requires scientifically literate and laboratory-skilled high school graduates. Therefore, it is imperative that they participate in a dynamic science education program with considerable laboratory opportunities. Such a program will encourage student understanding of the experimental nature of science, increase the level of students' technical skills, and enhance student enthusiasm with an emphasis in Agriscience career exploration.

**II.     PROGRAM GOALS**

- A.    Maximize laboratory use and provide a laboratory-centered science experience for the specific use of students in an Agriscience-based curriculum.
- B.    Provide a laboratory program with the newest technologies to create pathways to careers in Agriscience.
- C.    To create one of the most advanced Agriscience programs in the country.
- D.    To develop working partnerships with community organizations and create intern-ready students for working in Agriscience facilities.

**III.    PROGRAM ACTIVITIES**

**A.    Courses Offered**

The Academy of Agriscience and Natural Resource Education shall offer three courses: 1) Aquaculture, 2) Horticulture Science and Services, and 3) Landscape Operations.

- 1.    Agriscience Foundations I
- 2.    Aquaculture 2
- 3.    Aquaculture 3
- 4.    Introductory Horticulture
- 5.    Horticultural Science 3
- 6.    Horticulture Science and Services 4
- 7.    Horticulture Science and Services 5
- 8.    Horticulture Science and Services 6
- 9.    Landscape and Turf Sciences 4
- 10.   Landscape and Turf Science 5
- 11.   Landscape Operations 6

**B.    Teacher Activities**

- 1.    Conduct lecture/class discussion.
- 2.    Demonstrate for single and double classes in lecture room.
- 3.    Demonstrate on marker board, smart board and projector.
- 4.    Plan, provide and lead laboratory activities.
- 5.    Use ITV, videos, Closed-Circuit TV, etc.
- 6.    Teach, test and remediate individuals, small and large groups.
- 7.    Prepare students for science fair competitions.

8. Answer individual student questions.
9. Plan individually and departmentally.
10. Team teachers with single and double classes in teaching/lecture room.
11. Use models and charts.
12. Conduct outdoor instructional activities for classes and individual students.

**C. Student Activities**

**1. Classroom/Laboratory**

- a. Perform activities in small and large groups.
- b. Listen to lecture and participate in class discussions.
- c. Participate in small group activities with display equipment, such as aquarium models and other apparatus for class projects not requiring laboratory facilities.
- d. Maintain animals and plants in an environment conducive to study.
- e. Plan, prepare, demonstrate, and exhibit science research projects for science fairs and student organizations.
- f. Utilize counter space to read earth science maps, operate computers, etc.
- g. Study and experiment individually.
- h. Perform experiments in a humid and light controlled environment.
- i. Perform scientific experiments in groups of two or three. These experiments will apply, prove and/or test basic theories which have been presented in the classroom.
- j. Use a variety of microscopes to observe specimens and project microscope images through the use of projectors.
- k. Utilize apparatus, equipment and perform scientific experiments requiring electricity, water, air, and gas.
- l. View ITV, and videos individually and in groups.
- m. Interface the computer with basic laboratory equipment.

**IV. ORGANIZATIONAL NOMENCLATURE**

Teacher - Student Ratio 1:20

Grade Levels for Which Program is Intended 9 - 12

**V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES**

- A. Provide for inter- and intra-departmental Closed-Circuit TV which will allow for the

transmission of appropriate lectures and demonstrations to selected classrooms/laboratories.

The opportunity for centralizing signal origination shall be available. Selective switching of programming to points of signal origination shall include the classroom/laboratories.

- B. Community School utilization in science-related interest.
- C. Science areas shall have a lockable, equipment maintenance room with hose bibbs to allow cleaning and storage of wet equipment after field trips.
- D. The science laboratories shall be equipped for Biology, Chemistry, Physics, Agriculture and other related Science programs.

**VI. JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

N/A

**VII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Existing Sq. Ft. Total	Proposed		Existing Stu. Sta. Total
			Sq. Ft. Per Unit	Sq. Ft. Total		Stu. Sta. Unit	Stu. Stat. Total.	
<b>AGRISCIENCE</b>								
1	Existing Large Agriculture laboratory	1,600			2,925			20
1	Existing Vocational Related Classroom	675			527			
1	Existing Material Storage	395			173			
2	Existing Student Storage / (Tool Storage)	310			409			
1	Flammable Storage	125			73			
1	Storage Machinery	1100			1009			
1	Existing Vocational Lab Support Space				190			
1	Existing Vocational Lab Support Space				290			
1	Reference Room	100						
2	Lockers, Restrooms	450	225	450				
1	Existing Teacher Planning				108			
1	Existing Staff Restroom				54			
	<b>Subtotal</b>	<b>4,755</b>		<b>450</b>	<b>5,758</b>			
<b>Other Spaces</b>								
1	Outside Greenhouse	800			804			
1	Outside Storage			300				

**DRAFT SCHEDULED FOR MARCH 2005 BOARD**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Existing	Proposed		Existing
			Sq. Ft.	Sq. Ft.	Sq. Ft.	Stu. Sta.	Stu. Sta.	Stu. Sta.
			Per Unit	Total	Total	Unit	Total.	Total
<b>TOTAL</b>		<b>5,555</b>		<b>750</b>	<b>6,562</b>			<b>20</b>

**II. PROGRAM FURNITURE AND EQUIPMENT**

**A. Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
6-8	X		Lab tables to seat four students at each table; F.A.C.B.C. accessible, flat table top with acid resistant counter: no monitor well turret, enclosure or infrared remote keyboard; include deep, double stainless steel sink (in the middle of the table), deep, with cover for when sink is not in use; exclude portable cabinet cubicles and upright clamp rod assembly; include cold water unicast fixture with gas, air, electric and data (no unimix H/C). Work with District staff for the placement of the utilities located at the tables.
20-30		X	Student Chairs
15		X	Lab Tables for instruction
1		X	Teacher desk and chair
1		X	Laboratory Stool, adjustable back
20-30		X	Student Laboratory Stools
1		X	Activity table, 30"W x 72"L
1		X	File cabinet, four-drawer, legal, lateral, lockable, chemical resistant top
1		X	Laboratory cart, portable
1	X		Fume hood, permanent, vented to outside
1		X	Safety shield, (explosion shield) portable
1	X		Sterilizer for 40 safety goggles with lamp
1		X	Trash can, 25-gal., non-metal
1		X	Spark-resistant safety can for disposal of flammables
1		X	Dry chemical waste container
30-40		X	Microscope, regular and tissue culture
40		X	Safety goggle and spill-control pillows
1		X	Sand bucket, 25 pounds
30		X	Student apron
50-10		X	Gloves, various types
50		X	Soil Testing Kit
50		X	Soil Compactor Testing Kit
20		X	Soil temperature thermometer
10		X	Soil analysis hydrometer
10		X	Soil acidity meter
20		X	Soil moisture tester
10		X	Hydrometer cylinder
50		X	Fertilizer analyzer
10		X	Limnological water test outfit
10		X	Electric soil sterilizer
50		X	Plant tissue test kit

**DRAFT      SCHEDULED FOR MARCH 2005 BOARD**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
10		X	Soil reaction tester/meter
10		X	Acid rain study kit
50		X	Water Pollution Detection Kit
50		X	Air Pollution Detection Kit
50		X	Dissecting Kits
50		X	Nematode study kit
50		X	Pesticide safety kit
50		X	Transpiration bio kit
5		X	Egg Candling Light
1		X	Land, Heavy duty, long distance, Measuring Wheel
1		X	Laser Finder
1		X	Projector, microvideo for use with microscope
1		X	Rangefinder
5		X	Respirator
1		X	Vacuum Cleaner, wet/dry, minimum 16 gal.
5		X	Soil Meter
2		X	Stirring Unit
1		X	Tachometer
1		X	Indicator, Wind Speed
1		X	Protective Screen 5'x6'
2		X	Digital Camera
2		X	Camcorder
5		X	Scale
1	X		Autoclave
1		X	Centrifuge, Benchtop
1		X	Clinometer
1		X	Compass with staff
1		X	Planimeter, Digital
1		X	Mixer, Concrete
1		X	Conduit Bender, Offset, one each of 1/2 & 3/4
5		X	pH Meter, waterproof
5		X	Soil formation kit
1		X	Rain Gauge, electronic
1		X	Wireless Weather Station
5		X	Hygrometer Indicator
12		X	Dew Point Apparatus
2		X	Thermometer, indoor & outdoor
1		X	Incubator
1		X	Brooder
2		X	Altimeter/barometer
1		X	Mobile agriculture station
4		X	Fish tank & accessories, minimum of 55 gal.
2	X		Microwave (large enough to hold 1 liter)
1	X		Deluge shower and eye wash
1	X		Stove
2		X	Glassware drying rack
1	X		Refrigerator with ice maker
1	X		Dishwasher, commercial grade
1	X		Double stainless steel sink adjacent to dishwasher
6		X	Computer
3		X	Printer
1		X	Fax Machine
5		X	Multimedia Kit



**DRAFT SCHEDULED FOR MARCH 2005 BOARD**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
2		X	Mobile laptop computer cart to house 30 computers
60		X	Laptop computer
1	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
3	X		Insect cabinet with pinning trays (10 draws each)
1		X	Tissue culture incubator
1		X	Engraver
1		X	Binding Machine
1		X	Paper Cutter
1		X	Document Camera
1		X	Photocopier
5	X		Chemical Storage Cabinet
2	X		Marker board, stackable, 4' x 16', with map rail and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
		X	Audio Enhancement system
1		X	LCD Projector
1	X		Pencil sharpener with proper backing
	X		Fire extinguishers, per code
1	X		Fire blanket, wall-mounted
1	X		First Aid kit, wall mounted
1	X		Display cabinet, transparent front
1	X		Clock, battery
	X		Built-ins (refer to special considerations)
1	X		Teacher demonstration table (refer to special considerations)

**B. Flammable Storage**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
		X	Gasoline Containers
		X	Sprayers
1		X	Trash can, 25-gal. capacity, non-metal
	X		Smoke detector, per code
	X		Exhaust fan, per code
	X		Fire extinguishers, per code
1	X		Fire blanket, wall-mounted
1	X		First Aid kit, wall mounted
1	X		Double stainless steel sink, deep
2		X	Stainless steel laboratory, cart
3	X		Fire proof steel storage cabinet (3), lockable -- for caustics, acids, flammables, pesticides & fertilizers
1	X		Fixed fume hood
	X		Built-ins (refer to special considerations)

**C. Material Storage**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
2	X		Fire proof steel storage cabinet (3), lockable -- one cabinet each for caustics, acids and flammables
1	X		Refrigerator with ice maker, commercial
1		X	Trash can, 25-gal. capacity, non-metal
2	X		Double stainless steel sink, deep
	X		Built-ins (refer to special considerations)

**D. Related Classroom**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1		X	Teacher desk and chair
20		X	Combo desks
1		X	File cabinet, four-drawer, legal, lateral, lockable, chemical resistant top
12-20		X	Computer
4		X	Printer
1		X	Scanner
1	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker Board, 4' x 16', with map rail and flag holder
1-2	X		Tack Board, 4' x 4'
1		X	Smart Board (large)
1	X		6' x 8' Video Format Screen with black masking borders
		X	Audio Enhancement system
		X	LCD Projector
1	X		Pencil sharpener with proper backing
1	X		Clock, battery
	X		Built-ins (refer to special considerations)
1	X		Teacher demonstration table (refer to special considerations)

**E. Outside Greenhouse & Outside Storage**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
4-6	X		Tables for plants
	X		Overhead watering system
2	X		Utility Tub/Sink
	X		Climate Control System
50-100		X	Work gloves
5-10	X		Hanging Tool Racks
12		X	Biltmore Sticks
6		X	Dibble
12		X	Tree Caliper, 50" diameter
6		X	Increment Borer
2		X	Diameter Tape
12		X	Hand pruners

**DRAFT SCHEDULED FOR MARCH 2005 BOARD**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
5		X	Budding knife
		X	Hoses
		X	Sprinklers
5		X	Lopping Shears
8		X	Tooth rakes
8		X	Leaf rakes
8		X	Shovels
2		X	Post Hole Diggers
10		X	Wrench Set
12		X	Hammers
5		X	Wheelbarrow
		X	Miscellaneous Hand Tools
	X		Built-ins (refer to special considerations)

**F. Outside Covered Patio**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
4	X		Outdoor Lab Tables that seat 4 students with electrical and water
5	X		Utility Tub/Sinks located on the wall
	X		Built-ins (refer to special considerations)

**G. Machinery Storage & Outside Storage**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1		X	Tractor
		X	Cart and other accessories for the tractor
1		X	Truck
	X		Built-ins (refer to special considerations)

**H. Student Storage & Tool Storage**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
50		X	Tool Totes
	X		Built-ins (refer to special considerations)

**I. Locker (per)**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
18	X		½ size lockers
2	X		Stainless steel mirror in each locker room
	X		Security mirrors
5	X		Towel hooks
1	X		Tack board, 4'x6'
1	X		Clock

No. of Items	Contractor Provided	District Provided (FF&E)	Description
	X		Built-ins (refer to special considerations)

**Consult with SDPBC Program Management (Construction Liaison at-large) for additional Furniture, Fixtures and Equipment.**

**IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED**

Refer to GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL.

- A. **Heating/Cooling/Ventilation** - As required to meet District Standards.
  - 1. **Laboratory:** Provide emergency exhaust system.
  - 2. **Material Storage:** Provide exhaust system to outside. Provide separate make-up air systems for occupied and unoccupied times.
  - 3. **Fume Hoods:** Provide vent to outside.
  - 4. **Flammable Storage:** Provide vent to outside.
  - 5. **Chemical Storage Cabinets:** Provide vent to outside.
  - 6. **Outdoor Greenhouse:** Provide Climate Control System.
  - 7. **Outside Covered Patio:** Ceilings fans will be determined by the Building Department.
  
- B. **Acoustical** - As required to meet District Standards.
  
- C. **Floor** - As required to meet District Standards. Laboratory shall have chemical and damage-resistant surface. Storage areas shall be chemical-resistant. Chemical storage room shall be treated concrete. All laboratories shall have floor drains under the shower.
  
- D. **Walls** - As required to meet District Standards.
  
- E. **Ceiling** - As required to meet District Standards. The laboratory ceilings should be at a height of 12', minimum.
  
- F. **Lighting** - As required to meet District Standards. Provide lights in the Greenhouse and at the Outside Covered Patio.
  
- G. **Windows** - As required to meet District Standards. Provide observation window between material storage and laboratory; between teacher planning and laboratory and between the related classroom and laboratory.
  
- H. **Doors** - As required to meet District Standards. Provide large door(s) for the machinery storage for tractor and other large equipment. Provide large door(s) for the large equipment in the laboratory.
  
- I. **Water/Plumbing Fixtures** - As required to meet District Standards. Provide (HW) and (CW) at teacher station, material storage and chemical storage. Provide (CW) at

student stations. Provide master shut-off valve for water. Provide cold water to the deluge shower and eye wash. Based on program furniture and equipment, provide water as required. Provide water at the tables and wall at the outside patio area. Also provided hose bibs at the Outside Covered Patio, Greenhouse and Laboratory.

- J. **Communications** - As required to meet District Standards. Provide PA system for the Greenhouse, Outside Covered Patio and Fields. Provide emergency call button in the Outside Covered Patio and Greenhouse.
- K. **Electrical** - As required to meet District Standards. 120 - volt electrical service shall be provided. Master shut-offs to all electrical outlets in an area shall be provided and located in a secure area near the demonstration areas in laboratories and near the exit doors of other areas, with the exception of the chemical storage room where the master shutoff will be located externally and marked. Heat and smoke detectors, per code, connected to central alarm system in laboratories and chemical storage room. Provide electrical outlets at student science tables. Provide electrical outlets in storage areas. Based on program furniture and equipment, provide electrical as required. Provide electric at the tables and wall at the outside covered patio area and greenhouse. Provide some high voltage electrical outlets at the computer stations in Laboratory.
- L. **Instructional Technology** - As required to meet District Standards.
- M. **Gas and Air** - As required to meet District Standards. Provide two gas lines at teacher station and at student stations. Provide compressed air, gas and water at teacher station and at student stations. Provide master shut-off valves for gas and compressed air. Based on program furniture and equipment, provide gas and compressed air as required.
- N. **Safety** - As required to meet District Standards. Deluge shower, drain and eye bath (double spout wall fountain). One in laboratory and in chemical storage.
- O. **Fencing** – As required to meet District Standards. Work with District staff on the height and location of fencing.
- P. **Service Drives** – As required to meet District Standards. Locate Agriscience facilities near drive way(s) for deliveries.
- Q. **Parking** - As required to meet District Standards.
- R. **Built-ins**
  - 1. **Laboratory** –
    - a. Provide and position counters with lockable cabinets below and glass-fronted cabinets above. Leave at least 2' of space between counter and upper cabinets to accommodate computers and other equipment.
    - b. Provide counter area for six (6) computers and fax machine. Each computer station shall be 6' in length for a total of 36' of counter. Electrical and data serve shall be located above counter. Provide open adjustable shelves above computer counter.

- c. Bookcases, 30"H, adjustable shelves.
- d. Provide microscope cabinet to house microscope (50), and stereoscopic microscope (15), lockable.
- e. Provide teacher demonstration table, 72", permanent with sink, electrical, gas, air and data connections with above demonstration mirror. Provide area for teacher computer, projector for microscope and document camera,
- f. Provide base cabinet with double sink adjacent to dishwasher in laboratory.
- g. Provide TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall

2. **Material Storage** –

- a. Provide acid-resistant counter on two walls with double, deep sink (2) with residue traps, full service (gas, air, electricity, water); lockable drawers and base cabinets with adjustable shelves.
- b. Provide wall cabinets, glass-front doors, lockable, with adjustable shelves on available wall space.
- c. Provide floor-to-ceiling, adjustable shelves, 12"D, on available wall space.

3. **Flammable Storage** –

- a. Provide stone top counter, approximately, 10', with acid-resistant sink and full service; lockable storage below and above.
- b. Provide 100 lineal feet, 14"D, chemical storage shelving, non-corrosive.
- c. Provide full-height, adjustable shelving on available wall space, with lip, non-corrosive, heavy-duty.

4. **Related Classroom** –

- a. Provide base cabinet with lockable doors and adjustable shelves and upper cabinets with lockable doors and adjustable shelves.
- b. Provide built-in bookcase, 5'L x 15"D x 40"H with adjustable shelves.
- c. Provide TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall

5. **Machinery Storage** –

- a. Provide full-height, adjustable shelving on available wall space, with lip, non-corrosive, heavy-duty.

6. **Locker Room** –

- a. Lockers shall be installed to insure that maximum utilization of room space is made. Locate as many lockers as possible on the walls of the locker rooms. Any and all rows shall be designed so that the instructors will have an unobstructed view of the lockers and dressing areas.
- b. Provide benches in front of lockers.

7. **Greenhouse** –

- a. Provide full-height, adjustable shelving on available wall space, with lip, non-corrosive, heavy-duty.

8. **Outside Storage** –

- a. Provide full-height, adjustable shelving on available wall space, with lip, non-corrosive, heavy-duty.

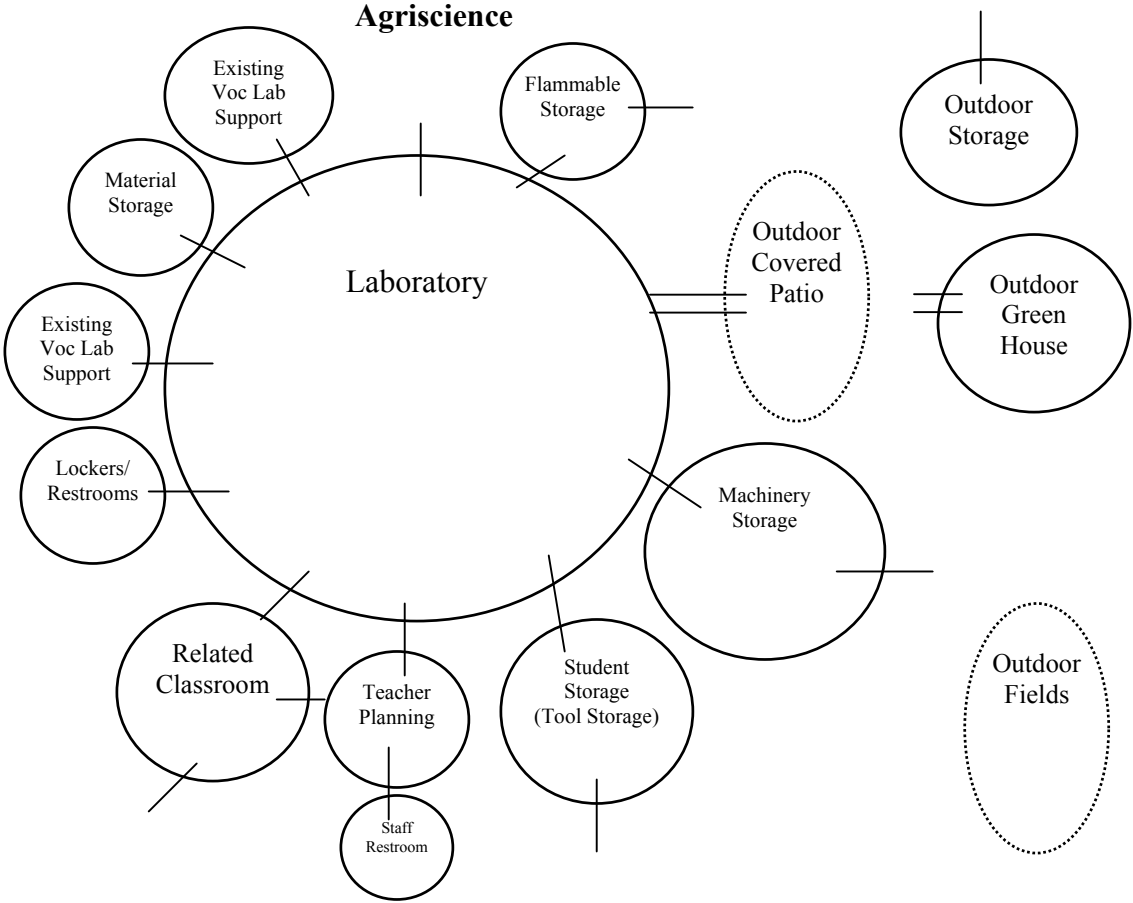
9. **Student Storage** -

- a. Provide lockable tote drawer cabinet for tool totes.
- b. Provide full-height, adjustable shelving on available wall space, with lip, non-corrosive, heavy-duty.

S. **Other Considerations**

1. Provide grease traps, where necessary.
2. Chemical storage to have outside wall in case of explosion.
3. Student activities take place in the perimeter areas of the laboratory. Laboratory shall require adequate standing height work surface.
4. A dispensing area located in the laboratory is necessary to issue supplies and equipment.

DRAFT    SCHEDULED FOR MARCH 2005 BOARD  
**SPATIAL RELATIONSHIPS**



Work with District Staff on the spatial relationships and doors due to configuration of the existing facility.



DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
**CRIMINAL JUSTICE**

**I      PROGRAM PHILOSOPHY**

The Criminal Justice Operations program is designed to introduce students to the criminal justice system. The program concentrates on producing responsible citizens, who through this training may pursue employment in law enforcement, the court system and/or corrections field. Upon successful completion of the program, students are prepared for employment as Police Service Aides, and may choose further specialized training in law enforcement, post secondary academy programs or college/university.

**II.      PROGRAM GOALS**

- A. To strengthen character and citizenship.
- B. To develop leadership skills.
- C. To stress self-discipline, order, respect for authority and motivation to achieve through teamwork.
- D. To increase awareness of the broad career opportunities available in the criminal justice field and related professions.
- E. To provide a comprehensive academic program, to include visits to criminal justice sites in the community.
- F. Engage in discussions with practicing criminal justice professionals.
- G. To promote and enhance a positive image of law and law enforcement.
- H. To provide students who are interested in the criminal justice field the opportunity to share common goals and experiences with their peers.
- I. To promote involvement with the total school program.
- J. To establish on-going partnerships with the criminal justice community and educational institutions for authentic "field" experiences.

**III.      PROGRAM ACTIVITIES**

- A. Develop latent fingerprints.
- B. Listen to lectures, discussions, police radios, communications, commercial radio, television, video tape, CD Rom Laser, guests, classmates, teachers and tape recordings.
- C. View films, filmstrips, picture, crime scenes, charts, maps, evidence.
- D. Read text materials, reference books, reports, investigative reports, newspapers, criminal justice journals and magazines.
- E. Inspect crime scene displays, tissue, blood stains, fingerprints, potential evidence involving glass, clothing, paint, tire impressions, footprints and body impressions.
- F. Make booklets, displays, posters, scrapbooks, bulletin boards, maps, replicas, sketches, court documents, investigative reports.
- G. Visit local law enforcement agencies, correctional facilities and court buildings and institutions.
- H. Write reports, summaries, probable cause affidavits, search warrants.
- I. Apply creative thinking, deductive reasoning and make logical deductions.

Students will be involved in four separate criminal justice courses, namely Criminal Justice Operations 1,2 and 3. Students will be sitting in desks, working a computer terminals, designated crime scene investigation areas and center island on special teacher directed

projects.

### **Criminal Justice Operation I**

This course is designed to introduce students to the fields of law enforcement, the court system and the corrections systems. The content includes career opportunities in these fields, court system, correctional system, interpersonal and communication skills and employability skills.

### **Criminal Justice Operations II**

The course is designed to develop competencies in patrol, traffic control, defensive tactics and physical proficiency skills and first aid to include cardiopulmonary resuscitation skills.

### **Criminal Justice Operations III**

This course is designed to develop competencies in crime and accident investigation procedures, forensic science tasks, crime prevention and property control procedures.

### **Public Service Education Directed Study**

This course is designed to provide students with additional competencies in the criminal justice program to enhance their opportunities for employment in an occupation chosen by the student.

## **IV. ORGANIZATIONAL NOMENCLATURE**

Teacher - Student ratio: 1:20

Grade levels for which program is intended: 9-12

## **V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USE**

- A. Crime scene investigations require an isolated, limited access area for a number of classes to examine, document and analyze investigative cases.
- B. Computer terminals against interior wall to encourage usage of cost-effective technological and provide data when conducting investigations.
- C. Develop and classify fingerprint impressions in order to determine the identity of person being eliminated or included as suspects in a criminal investigation.
- D. Running water and soap dispensers in the classrooms to clean students instruments and hands after handling materials in class.

## **VI. JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

- A. Locate teacher planning area nearby with outside telephone line and fax to be used by the Criminal Justice staff.

**VII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	<b><u>Criminal Justice</u></b>					
1	Laboratory			1,300	20	20
1	Material Storage			395		
1	Related Space			675		
	<b>Total</b>			<b>2,370</b>		

**I. PROGRAM FURNITURE AND EQUIPMENT**

**A. Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
20		X	Student desk and chair
1		X	Teacher desk and chair
2		X	Lectern, rollaway
12		X	Computer workstation with wire management
20		X	Computer chair
1		X	File cabinet, four-drawer, legal, lateral, lockable
12		X	Computer
2		X	Printer
1		X	Fingerprint station, Sirchie or comparable
1	X		Large deep double stainless steel sink with gooseneck facets (HW/CW)
2	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker board, 4' x 16', with map rail and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
1	X		Pencil sharpener with proper backing
1	X		First aid kit, mounted
1	X		Clock, battery
1	X		TV/Multimedia cabinet (refer to General Considerations)
	X		Built-ins (refer to special considerations)

**B. Related Space**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
20		X	Student desk and chair
1		X	Teacher desk and chair
2		X	Lectern, rollaway
12		X	Computer workstation with wire management
20		X	Computer chair
1		X	File cabinet, four-drawer, legal, lateral, lockable
12		X	Computer
2		X	Printer
2	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with

No. of Items	Contractor Provided	District Provided (FF&E)	Description
			adjustable shelving, lockable
2	X		Marker board, 4' x 8', with map rail and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
1	X		Pencil sharpener with proper backing
1	X		Clock, battery
1	X		TV/Multimedia cabinet (refer to General Considerations)
	X		Built-ins (refer to special considerations)

**Consult with SDPBC Program Management (Construction Liaison at-large) for additional Furniture, Fixtures and Equipment.**

**IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED**

Refer to **GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL.**

- A. **Heating/Cooling/Ventilation** - As required to meet District Standards.
- B. **Acoustical** - As required to meet District Standards.
- C. **Floor** - As required to meet District Standards.
- D. **Walls** - As required to meet District Standards.
- E. **Ceiling** - As required to meet District Standards.
- F. **Lighting** - As required to meet District Standards.
- G. **Windows** - As required to meet District Standards.
- H. **Doors** - As required to meet District Standards.
- I. **Water/Plumbing Fixtures** - As required to meet District Standards. Provide fingerprint station in laboratory with a large deep double stainless steel sink with gooseneck facets (HW/CW). Provide paper towel dispenser at sink.
- J. **Communications** - As required to meet District Standards. Provide outside phone line and fax line in the teacher planning area located nearby. Two phone lines in addition to standard system.
- K. **Electrical** - As required to meet District Standards. Provide outlets for all computers and technical equipment in laboratory and related space. Provide electrical outlets, computer outlets and lighting for center island teacher/student workstation.
- L. **Instructional Technology** - As required to meet District Standards.

M. **Gas and Air** - As required to meet District Standards.

N. **Safety** – As required to meet District Standards.

O. **Fencing** - As required to meet District Standards.

P. **Service Drives** – As required to meet District Standards.

Q. **Parking** - As required to meet District Standards.

R. **Built-ins**

1. **Built-in Work/Storage**

a. **Laboratory**

- (1) Provide wall and base cabinets, 34”h with adjustable shelves, lockable.
- (2) Provide lockable storage cabinets to house fingerprinting and photography equipment and microscopes above the fingerprint station and near the sink.
- (3) Provide center island shaped in a U for teacher/student workstations, chemical resistant surface, approximately 22’l x 12’w with 24”d counter top (table height). Provide necessary electrical, computer and lighting hookups.
- (3) Provide computer counter to accommodate four (4) computers and two (2) printers (14’W x 30”D). The counter shall have grommets for wire management.
- (4) Provide TV/Multimedia cabinet, approximately 48” in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall

b. **Related Space**

- (1) Provide wall and base cabinets, 34”h with adjustable shelves, lockable.

c. **Material Storage**

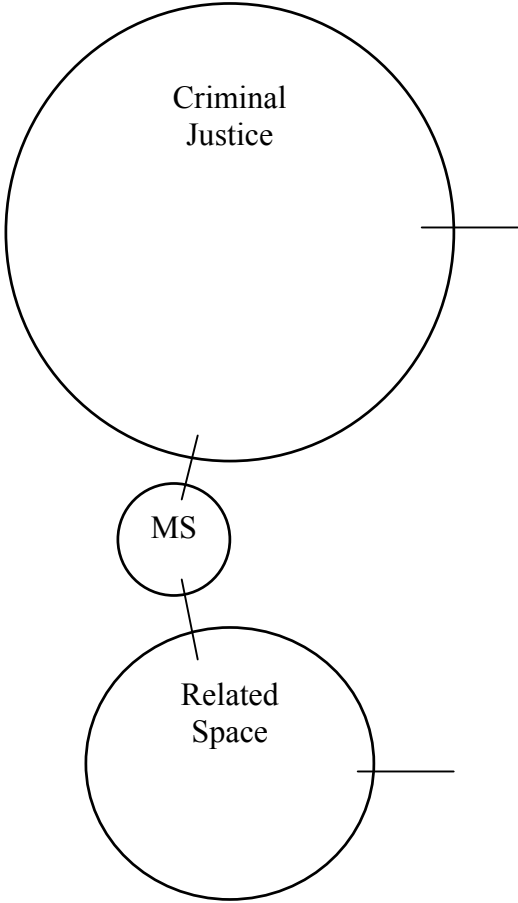
- (1) Provide adjustable shelving and hanging space for 200 uniforms: shirts, trousers, windbreakers, etc.

- (2) Provide shelving, adjustable (10), 36"W x 18"D, full height, for textbooks and supplies.

**S. Other Considerations – N/A.**

DRAFT SCHEDULED FOR MARCH 2005 BOARD  
SPATIAL RELATIONSHIPS

**Criminal Justice**



MS = Material Storage

## HEALTH OCCUPATIONS

### **I. PROGRAM PHILOSOPHY**

The health occupations program provides an opportunity for students to secure jobs and provides leadership training experiences in the health field.

### **II. PROGRAM GOALS**

The purpose of this program is to prepare students for employment as health aides, nurse aides, practical nursing and other health related occupations.

### **III. PROGRAM ACTIVITIES**

The following courses will be taught in Health Occupations:

- A. Nurse Assistance
- B. Health Unit Coordinator
- C. Allied Health Assistance
- D. Practical Nursing
- E. Home Health Aide
- F. EKG Aide
- G. Direct Independent Study
- H. OJT (on the job training)

### **IV. ORGANIZATIONAL NOMENCLATURE**

Teacher - Student Ratio 1:20

Grade Levels for Which Program is Intended 9 - 12

### **V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES**

- A. Clinical learning experiences are required and the student will perform these in a clinical and laboratory setting.

### **VI. JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

- A. Create two nurse stations (450 NSF) from Lockers, Restroom and Shower NSF.
- B. Create Laundry Area (100 NSF) from Reference NSF.



**VIII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	<b><u>Health Occupations</u></b>					
1	Health Occupations Laboratory		1,200	2,400	20	20
1	Dispensary		135	135		
1	Material Storage		155	310		
1	Project Storage		150	150		
1	Related Classroom		675	675		
	<b>Subtotal</b>			<b>2,315</b>		
1	Practical Nursing Laboratory			3,300	20	20
1	Dispensary			135		
1	Laundry (from reference)			100		
1	Material Storage			395		
2	Nurse Stations (from lockers/showers)		225	450		
1	Related Classroom/Computer Laboratory			675		
1	Project Storage			310		
1	Restroom with shower (from allotment)					
	<b>Subtotal</b>			<b>5,365</b>		
	<b>Total</b>			<b>7,680</b>		<b>40</b>

**VIII. PROGRAM FURNITURE AND EQUIPMENT**

**A. Related Classroom/Computer Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
20		X	Computer work stations with wire management
1		X	Teacher desk and chair
1		X	File cabinet, four-drawer, legal, lateral, lockable
1		X	Table, 30" x 72"
20		X	Chairs, stackable, 17", plastic
1		X	Lectern
1		X	Stool
2	X		Teacher storage cabinet, 36'W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker board, 4' x 8', with map rails and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
25		X	Computers
4		X	Printers
1	X		Pencil sharpener with proper backing
1	X		Single sink with HW & CW
1	X		Clock, battery
	X		Built-ins (refer to special considerations)
1	X		TV/Multimedia cabinet (refer to General Considerations)

**B. Nursing Station**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
4		X	Chair
1		X	Chart Back
1		X	Chart rack
1		X	Computer & printer
1		X	Telephone
1	X		Counter
1	X		Marker board, 4' x 16', with map rails and flag holder
1	X		Tack Board, 4' x 4'
1	X		Clock, battery
	X		Built-ins (refer to special considerations)

**C. Health Occupations Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1	X		Refrigerator
1	X		Microwave
1		X	Hospital bed
1	X		Curtain for privacy, curtain track
1		X	Bedside table
1		X	Overhead table
1		X	File cabinet, four drawer, lockable
1		X	Teacher desk
1		X	Teacher chair
1	X		Overhead/bed light
1		X	Computer & printer
1		X	EKG Equipment
10		X	Stool
1	X		Clock, battery
	X		Built-ins (refer to special considerations)

**D. Practical Nursing Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1	X		Refrigerator
1	X		Microwave
4		X	Hospital bed
1	X		Curtain for privacy, curtain track
4		X	Bedside table
4		X	Overhead table
1		X	File cabinet, four drawer, lockable
1		X	Teacher desk
1		X	Teacher chair
4	X		Overhead/bed light

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
1		X	Computer & printer
10		X	Stool
1	X		Clock, battery
	X		Built-ins (refer to special considerations)

**E. Dispensary**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
1		X	Drug cart, lockable
1		X	Table
1		X	Chair
1		X	Computer & printer
	X		Built-ins (refer to special considerations)

**F. Related Classroom**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
20		X	Student desk and chair
1		X	Teacher desk and chair
1		X	File cabinet, four-drawer, legal, lateral, lockable
1		X	Table, 30" x 72"
1		X	Bookcase
1		X	Lectern
1		X	Stool
2	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker board, 4' x 8', with map rails and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
4		X	Computers
2		X	Printers
1	X		Pencil sharpener with proper backing
1	X		Single sink with HW & CW
1	X		Clock, battery
1	X		TV/Multimedia cabinet (refer to General Considerations)
	X		Built-ins (refer to special considerations)

**Consult with SDPBC Program Management (Construction Liaison at-large) for additional Furniture, Fixtures and Equipment.**

**IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED**

Refer to **GENERAL CONSIDERATIONS, GENERAL SECURITY**

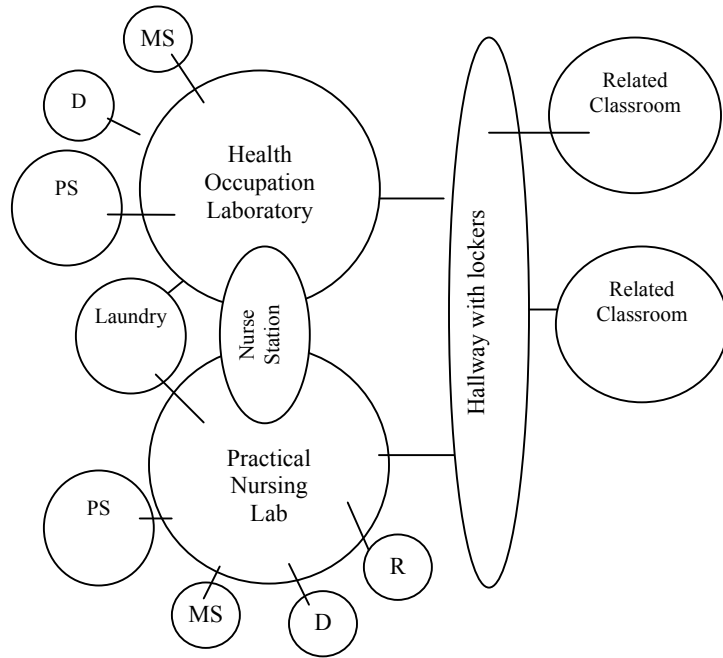
**CONSIDERATIONS AND TRAFFIC CONTROL.**

- A. **Heating/Cooling/Ventilation** - As required to meet District Standards.
- B. **Acoustical** - As required to meet District Standards.
- C. **Floor** - As required to meet District Standards.
- D. **Walls** - As required to meet District Standards. Provide ½ wall around nurse's station
- E. **Ceiling** - As required to meet District Standards. Provide ceiling track for privacy curtain around each bed in laboratory.
- F. **Lighting** - As required to meet District Standards. Provide lowlight above each bed.
- G. **Windows** - As required to meet District Standards.
- H. **Doors** - As required to meet District Standards. Provide one double door with removable mullion to allow hospital bed in laboratory.
- I. **Water/Plumbing Fixtures** – As required to meet District Standards. Provide double sink (HW and CW) in laboratories. Provide laundry sink in laundry room. Provide walk-in shower (handicap accessible) in restroom. Provide single sink with goose neck in dispensary.
- J. **Communications** - As required to meet District Standards. Provide telephone jacks in nursing stations.
- K. **Electrical** - As required to meet District Standards. In student work areas, counter space with electric outlets to plug in equipment.
- L. **Instruction Technology** - As required to meet District Standards.
- M. **Gas and Air** - As required to meet District Standards.
- N. **Safety** – As required to meet District Standards.
- O. **Fencing** – As required to meet District Standards.
- P. **Service Drives** – As required to meet District Standards.
- Q. **Parking** – As required to meet District Standards.
- Q. **Built-ins**
  - 1. **Built-in work/storage** – Do not use composition or pressed fiber board.

- a. **Laboratories** – Provide built-in work counter with cabinets underneath, lockable with adjustable shelves along one wall. Counter shall have three drawers, double sink with (HW) and (CW) next to standard refrigerator and microwave.
  - b. **Related Classroom** – Provide base cabinet with doors, lockable and adjustable shelves, 34"H, and upper cabinets with doors, lockable and adjustable shelves. Provide built-in bookcase, 5'L x 15"D x 40"H with adjustable shelves. Provide computer counter to accommodate four (4) computers and two (2) printers (14'W x 30"D). The counter shall have grommets for wire management. Provide TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall
  - c. **Computer Laboratory** - Provide base cabinet with doors, lockable and adjustable shelves, 34"H, and upper cabinets with doors, lockable and adjustable shelves. Provide built-in bookcase, 5'L x 15"D x 40"H with adjustable shelves. Provide TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall.
  - d. **Nurses Station** – Provide counter for nurses station with drawers and cabinets, lockable.
2. **Built-in work area for ten students in each laboratory -**
    - a. Provide counter space with four drawers, lockable with electrical and computer outlets (with grommets for wire management).
- S. **Other Considerations** –
1. Provide half wall lockers in size along corridor for health occupations students.

**SPATIAL RELATIONSHIPS**

**Health Occupations**



D = Dispensary  
MS = Material Storage  
PS = Project Storage  
R = Restroom w/ shower

**DRAFT      SCHEDULED FOR MARCH 2005 BOARD**  
**INFORMATION TECHNOLOGY**

**I.      PROGRAM PHILOSOPHY**

All students shall have the opportunity to gain working knowledge of capabilities, applications, entry level skills in networking, web and computer equipment and social impact of computer technology. As our technology increases more rapidly, it is important for a person to adapt to this changing technology, therefore necessitating a flexible training environment with the potential for growth and change.

**II.     PROGRAM GOALS**

Students will have an opportunity to:

- A. Gain a working knowledge of computer applications and their limitations
- B. Investigate computer-related careers and master necessary skills
- C. Develop problem solving skills for all areas of computer uses
- D. Acquire a desire for optimum development in computer education
- E. Be creatively challenged commensurate with ability.

**III.    PROGRAM ACTIVITIES**

The following courses will be taught in Computer Laboratory:

- A. Business System and Technology
- B. PC Support 1-6
- C. Networking 1-6
- D. Web Design 1-6
- E. Directed Independent Study

**IV.    ORGANIZATIONAL NOMENCLATURE**

Teacher - Student Ratio 1:20

Grade Levels for Which Program is Intended 9 - 12

**V.     INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES**

- A. Think tank exercises with developmental opportunities. Simulation of network and internet service provider operations.

**VI.    JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

- A. Combine two material storage into one larger space.

**VIII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	<b><u>Information Technology</u></b>					
3	Computer Labs		1,460	4,380	20	60
3	Material Storage		155	465		
3	Project Storage		150	450		
	<b>Total</b>			<b>5,295</b>		<b>60</b>

**VIII. PROGRAM FURNITURE AND EQUIPMENT**

**A. Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
20		X	Computer workstation with wire management
1		X	Teacher computer workstation and chair
1		X	File cabinet, four-drawer, legal, lateral, lockable
1		X	Table, 30" x 72"
1		X	Bookcase
25		X	Chairs
1		X	Lectern
1		X	Stool
2	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker board, 4' x 16', with map rails and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
20		X	Computers
4		X	Printers
2		X	Scanner
2		X	CD Burner
2		X	Multimedia computer stand
1		X	Multimedia stand to hold LCD projector, computer, keyboard with lockable storage
4		X	Computer wall unit
2		X	Heavy equipment worktables with stools
1		X	Network wall with lockable drawers
2		X	Computer racks on wheels with locks
1	X		Pencil sharpener with proper backing
1	X		Single sink with HW & CW
1	X		Clock, battery
1	X		TV/Multimedia cabinet (refer to General Considerations)
	X		Built-ins (refer to special considerations)

**Consult with SDPBC Program Management (Construction Liaison at-large) for additional Furniture, Fixtures and Equipment.**



## IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED

Refer to GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL.

- A. **Heating/Cooling/Ventilation** – As required to meet District Standards.
- B. **Acoustical** - As required to meet District Standards.
- C. **Floor** - As required to meet District Standards.
- D. **Walls** - As required to meet District Standards.
- E. **Ceiling** - As required to meet District Standards.
- F. **Lighting** - As required to meet District Standards.
- G. **Windows** - As required to meet District Standards. Provide observation windows between material storage and laboratory.
- H. **Doors** - As required to meet District Standards.
- I. **Water/Plumbing Fixtures** - As required to meet District Standards.
- J. **Communications** - As required to meet District Standards.
- K. **Electrical** - As required to meet District Standards. Provide one duplex outlet per station, plus one surge protector per station in laboratories; provide outlets for computers and tables on perimeter with sufficient amperage to run 35 computer devices.
- L. **Instruction Technology** - As required to meet District Standards.
- M. **Gas and Air** - As required to meet District Standards.
- N. **Safety** – As required to meet District Standards.
- O. **Fencing** – As required to meet District Standards.
- P. **Service Drives** – As required to meet District Standards.
- Q. **Parking** – As required to meet District Standards.
- R. **Built-ins**
  - 1. **Built-in work/storage**
    - a. **Laboratories** – Provide metal shelving with adjustable shelving. Provide backing in walls to attach metal shelving. Provide 25 cubbyholes approximately 15” h x 15”w x 15”d each by entrance. Provide built-in bookcase, 5’L x 15”D x 40”H with adjustable shelves. Provide

TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall

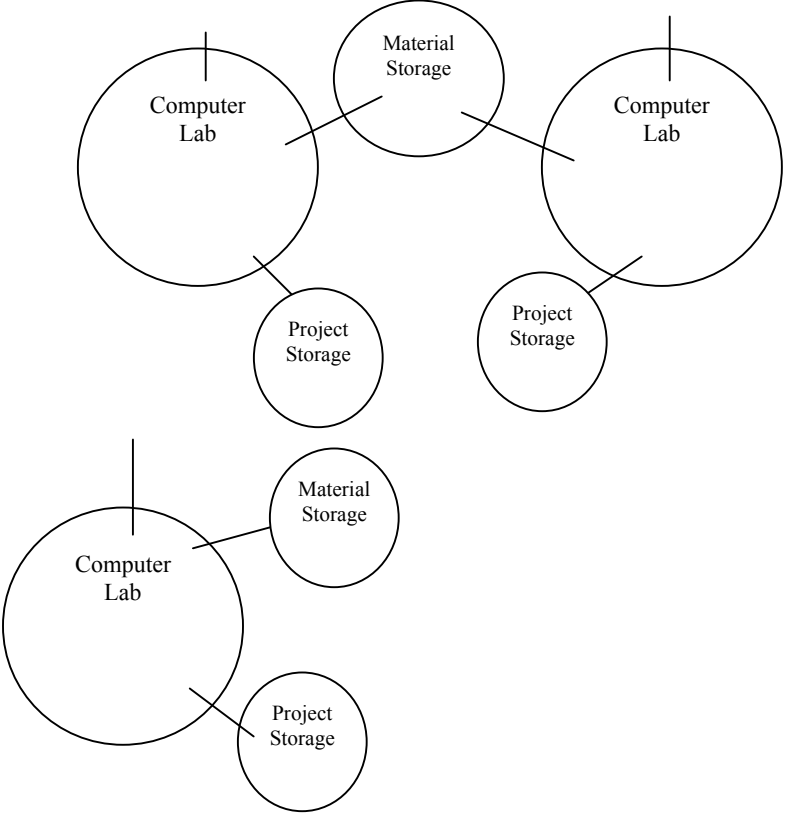
- b. **Project Storage** – Provide cabinet (2), approximately, 7'H x 4'W x 18"D; with doors and adjustable shelving.

S. **Other Considerations**

- 1. Provide data and electrical hook-ups in the material storage.

DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
**SPATIAL RELATIONSHIPS**

**Information Technology**



DRAFT      SCHEDULED FOR MARCH 2005 BOARD  
**TECHNOLOGY EDUCATION**

**I      PROGRAM PHILOSOPHY**

Technology Education is a comprehensive action-based educational program concerned with technical means, their evolution, utilization, and significance; with industry, its organization, personnel, systems, techniques, resources, and products; and their social/cultural impact.

**II.     PROGRAM GOALS**

The program is designed to provide students with an in-depth foundation for career preparation at the secondary or post-secondary levels. Students will gain skills leading to consumer awareness and personal enrichment as well as occupational readiness.

**III.    PROGRAM ACTIVITIES**

**A.    General Activities    (applicable to all laboratories)**

1.    Applying problem solving techniques
2.    Applying tools, materials, processes, and technical concepts safely and efficiently
3.    Designing and developing
4.    Applying other school subjects
5.    Dealing with forces that influence the future
6.    Experimenting in the laboratory
7.    Becoming a wiser consumer
8.    Making informed career choices

**B.    Specific Activities**

**1.    Drafting/Illustrative Design Technology Laboratory**

- a.    Operating a computer utilizing a CAD program
- b.    Making computer assisted drawings (CAD)
- c.    Making orthographic, pictorial, auxiliary view, and sectional view drawings
- d.    Making engineering and architectural drawings

**2.    Communications Technology Laboratory**

- a.    Operating a computer utilizing a desktop publishing program
- b.    Producing printed copies
- c.    Using the screen printing process
- d.    Using continuous tone photography
- e.    Using binding and finishing processes
- f.    Using enlargers
- g.    Developing prints
- h.    Using video camera equipment
- i.    Using video editing equipment
- j.    Using audio editing equipment

**3. Engineering Technology Laboratory**

- a. Demonstrating and applying fluid system principles
- b. Demonstrating and applying thermal system principles
- c. Demonstrating and applying electrical system principles
- d. Demonstrating and applying mechanical system principles
- e. Communicating through oral, written, or graphical means the results of solutions of designs
- f. Demonstrating graphical literacy and use of graphical representation in analysis and design
- g. Demonstrating engineering analysis and design methods
- h. Using tools, machines, calculators, and computers necessary for obtaining solutions to design problems
- i. Conducting research and experimentation and/or designing a project on engineering technology

**4. Production Technology Laboratory**

- a. Performing processing skills on industrial materials and composites
- b. Producing custom products from industrial materials and composites using preprocessing, processing, and postprocessing production technology skills
- c. Planning and participating in a mass production system for manufacturing a product
- d. Performing technological processes of separating and forming materials
- e. Utilizing modern production technology in the processes of separating, forming, combining, fabrication and finishing of materials (CAM, CNC, Robotics, and Work Cells)
- f. Conducting research and experimentation projects on a production technology system
- g. Demonstrating technological knowledge and skills in the designing and engineering of constructed works
- h. Demonstrating technical knowledge and skills in the contracting, estimating, bidding, and scheduling procedures processes

**IV. ORGANIZATIONAL NOMENCLATURE**

Teacher - Student ratio: 1:24

Grade levels for which program is intended: 9-12

**V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USE**

Titles of the laboratories have changed to comply with the revised educational program.

**VI. JUSTIFICATION FOR VARIANCE FROM STATE REQUIREMENTS FOR EDUCATIONAL FACILITIES (S.R.E.F.)**

N/A

**VII. PROGRAM FACILITIES LIST**

Spaces	Description	SREF Sq. Ft. Total	Proposed		Proposed	
			Sq. Ft. Per Unit	Sq. Ft. Total	Stu. Sta. Per Unit	Stu. Sta. Total
	<b>Engineering (Project Lead the Way)</b>					
1	Engineering			3,240	24	24
1	Technology Resource			800		
1	Material Storage			90		
1	Material Storage			395		
1	Project Storage			310		
1	Tool Storage			310		
	<b>TOTAL</b>			<b>5,145</b>		

**II. PROGRAM FURNITURE AND EQUIPMENT**

**A. Engineering Technology Laboratory**

No. of Items	Contractor Provided	District Provided (FF&E)	Description
1		X	Teacher chair, pneumatic lift, non-tilt, caster base, armless
1		X	Drafting table, teacher's, 48"W x 37"D x 37"H, solid maple legs, full tilting top, tool drawer with lock, shallow print drawer, with dust cover
1		X	Parallel straightedge, 48," mobile, with mounting hardware and instructions
1		X	Teacher drafting stool, pneumatic lift, non-tilt, caster base, armless
1		X	File cabinet, four-drawer, legal, lateral, lockable
1		X	Filing cabinet, 18"W x 26"D, two-drawer, legal, lockable
1		X	Magazine rack, 42"W x 18"D x 60"H, steel, eight shelves
3		X	Work station, 15' x 15', quad type, eight students, each
24		X	Student chair, pneumatic lift, non-tilt, caster base, armless, for work stations
24		X	Drafting table, 48"W x 37"D x 37"H, solid maple legs, full tilting top, tool drawer with lock, shallow print drawer, with dust cover
1		X	Hand tools, assorted, including basic woodworking and mechanical tools
1	X		Tool storage cabinet, 62"W x 22"D x 84"H, general shop, without tools, constructed of hard maple framing with hardwood plywood panels, with master keyed locks
1	X		Cabinet, 72"W x 30"D x 34"H, sliding door, steel base with double sliding doors, one adjustable shelf, cylinder lock 2" maple top
2		X	Work bench, 64"W x 28"D x 2"H, two-station, base consists of one heavy gauge steel unit, with double swinging doors and cylinder lock, top is constructed from hard rock maple, with one wood-working vise

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<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
2	X		Cabinet, 60"W x 30"D x 34"H, sliding door, steel base with double sliding doors, one adjustable shelf, cylinder lock, 2" maple top
1	X		Tool storage cabinet, 60"W x 22"D x 84"H, for portable power tools and robot arms, two sections, each with five adjustable shelves, constructed of hard maple framing and hardwood plywood panels, with master keyed locks
18		X	Computer
11		X	Power-switching system, with surge suppression, 115V
1		X	Printer, Laser
5	X		Reels from ceiling for air and electric on side
1		X	Air compressor, portable
1		X	Robotic arm, advanced robotic arm with teach through nose software, including: curriculum and instructional packages, Vision System, linear conveyor, rotary table, linear slide base, two experimenter tables, end effector package, D.C. servo motor kit, gravity feeder, infra-red sensor, integration manual, and bar stock gripper adapter
1		X	Computer Numerical Controlled (CNC) metal lathe, bench-top model, lathe machinist kit, air chuck robotic interface, pneumatic lathe shield opener, CAD/CAM software, 200-2000 RPM, 1/2 HP single phase motor, 115V, 12A
1		X	Mobile service bench, for CNC metal lathe, 5" casters, 42"W x 24"D x 28"H
1		X	Computer Numerical Controlled (CNC) milling machine, 24"W x 22"D bench-top model, with Lexan safety shield, air vise robotic interface, milling machinist kit, quick-change tooling, CAD/CAM software and documentation, 1HP DC motor, 115V, 15A
1		X	Mobile Computer Integrated Manufacturing (CIM) bench (2), 36" x 72", steel, with controller mounting modules Type 1 and 2, keyboard/monitor mounting module, utilities distribution module, electrical power module, compressed air distribution module, quick release connector, and monitor multiplexer
1		X	Band saw, 8", bench-top mounted, with miter gauge, 1/5 HP single phase motor, 115V, 2.5A
1		X	Scroll saw, 20", bench-top mounted, tilting table, multi-speed, with blades and accessories, single phase motor, 115V, 2A
1		X	Drill press, 14", bench-top model, five spindle speeds, 1/2" chuck, 11"W x 25"D, 1/2 HP single phase motor, 115V, 10A
1		X	Combination belt/disc sander, 1" belt/8" disc, bench-top model, with miter gauge, 15"W x 24"D, 1/2 HP single phase motor, 115V, 10A
1		X	Tool grinder, 6," bench-top model, with two-piece tool rests, exhaust-type guards, two wheels 6" x 1/2" x 1/2" (one, 36 - grit and one, 60 - grit), 1/2 HP single phase motor, 115/230V, 10/5A
1		X	Utility vise, 5" jaw width, 5-1/2" opening, with

**DRAFT SCHEDULED FOR MARCH 2005 BOARD**

<b>No. of Items</b>	<b>Contractor Provided</b>	<b>District Provided (FF&amp;E)</b>	<b>Description</b>
			replaceable serrated steel jaws, built-in steel pipe jaws, swivel base
3		X	Vacuum cleaner, 28 - gallon, with 6' x 2- $\frac{1}{2}$ " hose, extension wands and nozzle, 115V, 10A
1		X	Drill, variable speed, reversing, $\frac{1}{2}$ " chuck, 115V, 4A
2		X	Bench, steel, open base, 72"W x 30"D
1	X		Safety glasses cabinet, with glasses
2		X	Television, 27" color, with cart, 115V, 2A
1		X	VCR, four - head, 115V, .5A
1		X	Video encoder, to connect a computer's video card to a VCR and TV
1		X	Structural technology module, with structural tester (counter top model), videos, projects, software and manuals
1		X	Electricity and electronics module, with trainer, tools, meters, leads and curriculum, 115V, 1A
1		X	Hydraulics module, with lockable steel case, counter top, components, video, instructor notes and curriculum
1		X	Pneumatics module, with lockable steel case, counter top, components, video, instructor notes and curriculum
1		X	Mechanisms module, with lockable steel case, counter top, components, video, instructor notes and curriculum
1		X	Oily waste can, six gallon
2	X		Teacher storage cabinet, 36"W x 30"D x 72"H, with adjustable shelving, lockable
2	X		Marker board, 4' x 16', with map rail and flag holder
2	X		Tack Board, 4' x 4'
1	X		6' x 8' Video Format Screen with black masking borders
1	X		Pencil sharpener with proper backing
	X		Fire extinguishers, per code
1	X		Fire blanket, wall-mounted
1	X		First Aid kit, wall mounted
1	X		Provide stainless steel sink, 18"D x 24"W, with hot and cold water
1	X		Electric water cooler.
1	X		Clock, battery
1	X		TV/Multimedia cabinet (refer to General Considerations)
	X		Built-ins (refer to special considerations)

**Consult with SDPBC Program Management (Construction Liaison at-large) for additional Furniture, Fixtures and Equipment.**

**IX. SPECIAL CONSIDERATIONS - CONTRACTOR PROVIDED**

Refer to **GENERAL CONSIDERATIONS, GENERAL SECURITY CONSIDERATIONS AND TRAFFIC CONTROL**

**A. Heating/Cooling/Ventilation** - As required to meet District Standards.

**B. Acoustical** - As required to meet District Standards.



- C. **Floor** - As required to meet District Standards.
- D. **Walls** - As required to meet District Standards.
- E. **Ceiling** - As required to meet District Standards. 12' in the Engineering Technology Laboratory.
- F. **Lighting** - As required to meet District Standards.
- G. **Windows** - As required to meet District Standards. Exterior windows in the laboratory should be above eye-level to avoid outside distractions and allow use of wall space. Windows should be operable for ventilation. Maximum security must be provided at all exterior windows.
- H. **Doors** - As required to meet District Standards. Provide one, 6' double door with removable mullion in each laboratory to facilitate delivery of materials and sharing of equipment. Provide one, 6' double door with removable mullion between the equipment storage room and the Engineering Technology Laboratory.
- I. **Water/Plumbing Fixtures** - As required to meet District Standards.
- J. **Communications** - As required to meet District Standards.
- K. **Electrical** - As required to meet District Standards. Laboratory to have 120-volt, wall-mounted, duplex outlets 6' apart. One, 120-volt, industrial quality, pull-down/retractable, ceiling-mounted extension cord to be installed above each work bench, plus power poles for quad type computer work stations. When in the retracted position, the cords shall not extend lower than 6' above the floor. Material storage to have two, 120- volt duplex outlets. Student project storage to have two, 120-volt duplex outlets.
- L. **Instructional Technology** - As required to meet District Standards.
- M. **Gas and Air** - As required to meet District Standards. Provide compressed air in the Engineering Technology labs.
- N. **Safety** - As required to meet District Standards. Panic buttons (kill switches) for instant disconnection of all equipment should be installed on two walls in appropriate laboratories. A keyed reset switch to be installed in conjunction with one of the panic buttons in each laboratory. Adequate fire extinguishers of proper size must be provided in each laboratory.
- O. **Fencing** - As required to meet District Standards.
- P. **Service Drives** - As required to meet District Standards.
- Q. **Parking** - As required to meet District Standards.

**R. Built-ins****1. Engineering Technology Laboratory**

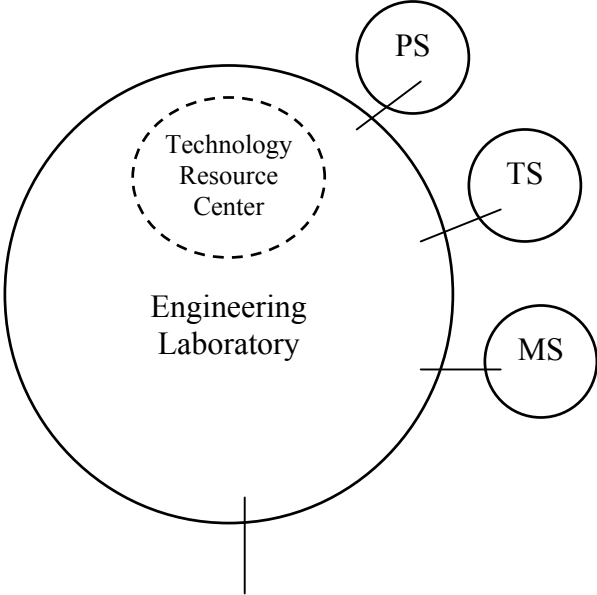
- a. Provide counter, 30', 1- $\frac{1}{2}$ " thick, hard maple top, with cabinets below and above, lockable.
- b. Provide teacher demonstration table, 96" x 30" x 34", with 1 $\frac{1}{2}$ " laminate top, double-door base unit with two adjustable shelves, five-drawer base unit, modesty panel, master keyed cylinder locks and pulls.
- c. Provide open, full-height shelving (12), 36" x 24" shelves in storage room.
- d. Provide storage cabinet (6), 36"W x 21"D x 78"H, steel construction, four adjustable shelves, lockable in storage room.
- e. Provide air compressor, central system, in all laboratories located away from laboratories.
- f. Provide TV/Multimedia cabinet, approximately 48" in height with the TV monitor sitting on top of the cabinet. The TV/Multimedia cabinet shall include lockable doors with adjustable shelving for multimedia equipment. The TV/Multimedia cabinet shall also have grommets for wire management. The TV/Multimedia cabinet shall be located along or near the teaching wall.

**S. Other Considerations**

1. Noise control between laboratories and within laboratory areas.
2. Visual availability and supervision should be considered in planning all areas of the laboratories for the purpose of providing the instructor visual contact with students at all times and in all areas.
3. Provide air compressor, central system, in all laboratories located away from laboratories.

DRAFT SCHEDULED FOR MARCH 2005 BOARD  
SPATIAL RELATIONSHIPS

**Technology Education**



MS = Material Storage  
PS = Project Storage  
TS = Tool Storage

**FACILITY SPACE SUMMARY****Glades Central High School****Grades 9 - 12****Academy Program Modification****Academy Student Stations: 164**

<b>Facility Area</b>	<b>Proposed Student Stations</b>	<b>Existing Student Stations</b>	<b>Proposed NSF</b>	<b>Existing NSF</b>
Agri-Science		20	750	6,562
Criminal Justice	20		2,370	
Health Occupations (Medical Skills)	40		7,680	
Information Technology	60		5,295	
Project-Lead-the-Way-Engineering	24		5,145	
Staff Restrooms			66	
Student Restroom			246	
Custodial			180	
Teacher Planning			400	
<b>Total</b>	<b>144</b>	<b>20</b>	<b>22,132</b>	<b>6,562</b>
<b>Total Student Stations</b>	<b>164</b>			
Mechanical @ 6%			<b>1,328</b>	
<b>Total Net Sq. Ft.</b>			<b>23,460</b>	
Circulation, Walls etc. @ 34%			<b>7,976</b>	
<b>Total Gross Sq. Ft.</b>			<b>31,436</b>	

The existing facilities will be analyzed by the project architect to determine appropriate usage of the site and buildings for necessary renovations and remodeling to meet SREF size standards, ADA requirements and other code issues.