

COMMONWEALTH of VIRGINIA

Board of Education Agenda



Date of Meeting: June 19, 2008 **Time:** 9 a.m.

Location: Jefferson Conference Room, 22nd Floor, James Monroe Building
101 North 14th Street, Richmond, Virginia

9:00 a.m. FULL BOARD CONVENES

Moment of Silence

Pledge of Allegiance

Approval of Minutes of the May 21-22, 2008, Meeting of the Board

Resolutions/Recognitions

- Resolution presented to Princess Moss, President of the Virginia Education Association, 2004-2008
- Resolution presented to the 2008 Virginia Teacher of the Year: Thomas R. Smigiel, Jr., Norview High School, Norfolk City Public Schools

Public Comment

Action/Discussion Items

- A. First Review of a Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) to Grant Approval to Requests to Add New Endorsement Programs at Emory and Henry College; Liberty University; Old Dominion University; Shenandoah University; Sweet Briar College; and The University of Virginia's College at Wise
- B. First Review of Proposed Timeline for the 2008 Review of the Standards of Quality
- C. First Review of a Proposal to Establish a Governor's Career and Technical Academy: The Governor's Career and Technical Academy in Arlington
- D. First Review of a Proposal to Establish a Governor's Career and Technical Academy: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE)
- E. First Review of Pupil Transportation Specifications for School Buses

Reports

- F. Report on Student Fees and Charges
- G. Annual Performance Report on Adult Education and Family Literacy

DISCUSSION OF CURRENT ISSUES - by Board of Education Members and Superintendent of Public Instruction

ADJOURNMENT

PUBLIC NOTICE

The Board of Education members will meet for dinner at 6:30 p.m. at the Crowne Plaza Hotel on Wednesday, June 18, 2008. Items for the Board agenda may be discussed informally at that dinner. No votes will be taken, and it is open to the public. The Board president reserves the right to change the times listed on this agenda depending upon the time constraints during the meeting.

GUIDELINES FOR PUBLIC COMMENT

1. The Board of Education is pleased to receive public comment at each of its regular monthly meetings. In order to allow the Board sufficient time for its other business, the total time allotted to public comment will generally be limited to thirty (30) minutes. Individuals seeking to speak to the Board will be allotted three (3) minutes each.
2. Those wishing to speak to the Board should contact Dr. Margaret Roberts, Executive Assistant for Board Relations at (804) 225-2924. Normally, speakers will be scheduled in the order that their requests are received until the entire allotted time slot has been used. Where issues involving a variety of views are presented before the Board, the Board reserves the right to allocate the time available so as to insure that the Board hears from different points of view on any particular issue.
3. Speakers are urged to contact Dr. Roberts in advance of the meeting. Because of time limitations, those persons who have not previously registered to speak prior to the day of the Board meeting cannot be assured that they will have an opportunity to appear before the Board.
4. In order to make the limited time available most effective, speakers are urged to provide multiple written copies of their comments or other material amplifying their views.

The *Regulations Governing the Review and Approval of Education Programs in Virginia*, in part, stipulate the following:

8VAC20-542-20. Administering the regulations.

- D. Institutions of higher education seeking approval of an education program shall be accredited by a regional accrediting agency....
- H. Education programs shall be approved under these regulations biennially based on compliance with the criteria described in 8VAC20-542-40....

8VAC20-542-40. Standards for biennial approval of education programs.

Approved education programs in Virginia shall have national accreditation or be accredited by a process approved by the Board of Education and demonstrate achievement biennially of the following accountability measures:

1. Candidate progress and performance on prescribed Board of Education licensure assessments. Candidate passing rates, reported by percentages, shall not fall below 70% biennially for individuals completing and exiting the program. Achievement of an 80% biennial passing rate shall be required by July 1, 2010. Candidates completing a program shall have successfully completed all coursework, required assessments, including those prescribed by the Board of Education, and supervised student teaching or internship. Candidates exiting a program shall have successfully completed all coursework, regardless of whether the individuals attempted, passed, or failed required assessments, including those prescribed by the Board of Education, and/or who may not have completed supervised student teaching or required internship.
2. Candidate progress and performance on an assessment of basic skills as prescribed by the Board of Education for individuals seeking entry into an approved education preparation program....
3. Structured and integrated field experiences to include student teaching requirements....
4. Evidence of opportunities for candidates to participate in diverse school settings that provide experiences with populations that include racial, economic, linguistic, and ethnic diversity throughout the program experiences....
5. Evidence of contributions to preK-12 student achievement by candidates completing the program....
6. Evidence of employer job satisfaction with candidates completing the program....
7. Partnerships and collaborations based on preK-12 school needs....

Summary of Major Elements:

On April 20, 2008, the Advisory Board on Teacher Education and Licensure recommended that the Board of Education grant approval for the following new endorsement programs at Emory and Henry College; Liberty University; Old Dominion University; Shenandoah University; Sweet Briar College; and The University of Virginia’s College at Wise.

Institution	Endorsement Program Requested	Level of Program
Emory and Henry College	Special Education Curriculum K-12	Graduate
Liberty University	Early Childhood for Three- and Four-Year Olds (Add-on Endorsement) This add-on endorsement may be added to a teaching license with an endorsement in elementary education.	Graduate
Old Dominion University	Mathematics Specialist for Elementary and Middle Education	Graduate
Shenandoah University	Spanish preK-12	Undergraduate
	Special Education General Curriculum K-12	Graduate
Sweet Briar College	Special Education General Curriculum K-12	Graduate
The University of Virginia’s College at Wise	Music Education-Instrumental preK-12 and Music Education-Vocal/Choral preK-12	Undergraduate

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the Advisory Board on Teacher Education and Licensure’s recommendation to grant “conditional approval” for new endorsement programs at Emory and Henry College, Liberty University, Old Dominion University, Shenandoah University, Sweet Briar College, and The University of Virginia’s College at Wise.

Impact on Resources: There is a minimum impact on resources.

Timetable for Further Review/Action: Colleges and universities must meet requirements for continued approval in accordance with the *Regulations Governing the Review and Approval of Education Programs in Virginia*, effective September 21, 2007.

Board of Education Agenda Item

Item: B.

Date: June 19, 2008

Topic: First Review of the Proposed Timeline for the 2008 Review of the Standards of Quality

Presenter: Ms. Anne D. Wescott, Assistant Superintendent for Policy and Communications

Telephone Number: (804) 225-2403

E-Mail Address: Anne.Wescott@doe.virginia.gov

Origin:

Topic presented for information only (no board action required)

Board review required by
 State or federal law or regulation
 Board of Education regulation
 Other: _____

Action requested at this meeting Action requested at future meeting: _____

Previous Review/Action:

No previous board review/action
 Previous review/action
date _____
action _____

Background Information: Article VIII, § 2 of the *Constitution of Virginia* requires the Board of Education to determine and prescribe Standards of Quality for the public schools in Virginia. The *Constitution* says:

“Standards of quality for the several school divisions shall be determined and prescribed from time to time by the Board of Education, subject to revision only by the General Assembly. The General Assembly shall determine the manner in which funds are to be provided for the cost of maintaining an educational program meeting the prescribed standards of quality, and shall provide for the apportionment of the cost of such program between the Commonwealth and the local units of government comprising such school divisions. Each unit of local government shall provide its portion of such cost by local taxes or from other available funds.”

The *Code of Virginia* requires the Board of Education to review the Standards of Quality every two

years. Section 22.1-18.01 of the *Code* says, in part:

“To ensure the integrity of the standards of quality, the Board of Education shall, in even-numbered years, exercise its constitutional authority to determine and prescribe the standards, subject to revision only by the General Assembly, by reviewing the standards and either (i) proposing amendments to the standards or (ii) making a determination that no changes are necessary....”

The *Code* also requires that the Board’s annual report to the Governor and General Assembly include any recommendations for revisions to the Standards of Quality. Section 22.1-18 of the *Code* says, in part:

“...the Board of Education shall submit to the Governor and the General Assembly a report on the condition and needs of public education in the Commonwealth and shall identify any school divisions and the specific schools therein which have failed to establish and maintain schools meeting the existing prescribed standards of quality. Such standards of quality shall be subject to revision only by the General Assembly, pursuant to Article VIII, Section 2 of the Constitution of Virginia. Such report shall include a complete listing of the current standards of quality for the Commonwealth's public schools, together with a justification for each particular standard, how long each such standard has been in its current form, and whether the Board recommends any change or addition to the standards of quality.”

On August 7, 1971, the Board of Education adopted the first Standards of Quality (SOQ). They were revised by the General Assembly in 1972 and adopted as uncodified Acts of Assembly. In 1974, they were revised into eight standards. In 1984, they were codified by the General Assembly, and in 1988 they were arranged into their current format.

The Board of Education revised its bylaws in October 2001 to require the Board to “determine the need for a review of the SOQ from time to time but no less than once every two years. The Standing Committee on the Standards of Quality was created by resolution of the Board of Education in November 2001 and held its first meeting in January 2002.

The Board has made recommendations to the Governor and the General Assembly, or has reaffirmed previous recommendations to the Governor and the General Assembly, on June 25, 2003, November 17, 2004, October 26, 2005, November 29, 2006, and November 29, 2007.

Summary of Major Elements: The proposed timeline would include the following major actions:

July	SOQ Committee meeting	Review of the Standards of Quality Discussion of Board priorities
September	Board meeting	First review of the recommendations to the Governor and the 2009 General Assembly

October	Following the Board meeting	Public hearing on the recommendations
November	Board meeting	Final review and approval of the recommendations to the Governor and the 2009 General Assembly

Superintendent's Recommendation: The Superintendent of Public Instruction recommends that the Board waive first review and approve the timeline.

Impact on Resources: The impact on state funds for the review of the Standards of Quality is expected to be minimal and can be absorbed within current resources.

Timetable for Further Review/Action: Upon approval of the timeline, staff will begin preparations for the Standards of Quality review by the Board.

Board of Education Agenda Item

Item: _____ C. _____

Date: _____ June 19, 2008 _____

Topic: First Review of a Proposal to Establish a Governor's Career and Technical Academy: The Governor's Career and Technical Academy in Arlington

Presenter: Dr. Linda M. Wallinger, Assistant Superintendent for Instruction
Mr. Milan S. Hayward, Northern Virginia Community College

Telephone Number: (804) 225-2034
(703) 845-2263

E-Mail Address: linda.wallinger@doe.virginia.gov
mhayward@nvcc.edu

Origin:

Topic presented for information only (no board action required)

Board review required by
 State or federal law or regulation
 Board of Education regulation

Other: Process for Initiating a Governor's Career and Technical Academy
Approved by the Board of Education on November 29, 2007

Action requested at this meeting Action requested at future meeting: _____(date)

Previous Review/Action:

No previous board review/action

Previous review/action
date _____
action _____

Background Information:

Virginia is one of six states to receive a grant from the National Governors Association (NGA) Center for Best Practices to improve science, technology, engineering, and mathematics (STEM) education. The development of Governor's Career and Technical Academies is one of the major initiatives of the grant.

Virginia's Governor's Career and Technical Academies are programs designed to expand options for the general student population to acquire science, technology, engineering and mathematics (STEM) literacy and other critical skills, knowledge and credentials that will prepare them for high-demand, high-wage and high-skill careers. Partnerships establishing

academies must include at least one public school division, business and industry, and postsecondary education. Six partnerships have been awarded grants to assist with the creation of Virginia's first Governor's Career and Technical Academies.

On November 29, 2007, the Board of Education approved the criteria to establish a Governor's Career and Technical Academy. Subsequently, on March 19, 2008, the Board approved the standards for the Governor's Career and Technical Education Exemplary Standards Awards Program, in which all Career and Technical Academies must participate.

As required by the Board of Education, the State Council of Higher Education in Virginia (SCHEV) has reviewed the attached proposal and recommends that the Board approve the Governor's Career and Technical Academy in Arlington. Staff at the Virginia Department of Education (DOE) have also reviewed the proposal in the context of the Board's criteria. An executive summary of the proposal is contained in Attachment A. Attachments B and C contain the reports from the reviews by SCHEV and the DOE. Attachment D contains the complete proposal.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the proposal to establish The Governor's Career and Technical Academy in Arlington.

Impact on Resources:

The Northern Virginia Community College, as the lead entity for the proposal, has already received a Department of Education planning grant through Virginia's participation in the National Governors Association's STEM Center Grant Program. Upon approval of the partnership's proposal by the Board of Education, the Department of Education will award an implementation grant to assist with further development of the program. The planning and implementation grant funds are available on a one-time basis only to the six partnerships that were selected through a grant competition associated with the National Governors Association's STEM Center Grant Program. Funding beyond the grant must be provided at the local level.

Timetable for Further Review/Action:

Governor's Career and Technical Academies funded through the National Governors Association's STEM Center Grant Program must be in operation by the beginning of the 2008-2009 academic year.

**Governor's Career and Technical Academy in Arlington
Executive Summary
June 19, 2008**

Partnership: Northern Virginia Community College and Arlington County Public Schools are co-lead partners for the Governor's Career and Technical Academy in Arlington. Partners include The American Service Center; Arlington Employment Center; Passport Nissan; Nortel Telecommunications; The American Youth Policy Forum; Viral Media Productions; and Virginia Polytechnic Institute and State University. Other supporters include The American Association of Community Colleges; Arlington Economic Development; DeVry University; Farrish of Fairfax; National Science Foundation; Passport Chrysler; and Passport Infiniti.

Fiscal Agent: Northern Virginia Community College

Contact: Mr. Milan Hayward, Special Assistant for Career and Technical Education
Northern Virginia Community College
4001 Wakefield Chapel Road
Annandale, VA 22003
(703) 323-2263
mhayward@nvcc.edu

Location: The Arlington Career Center
816 South Walter Reed Drive
Arlington, VA 22204

Career Pathways: Engineering and Technology
Audio and Video Technology and Film
(Health Sciences) Support Services
Information and Support Services
Facility and Mobile Equipment Maintenance

Number of Students: At least 50 students will be served during the 2008-2009 academic year, while up to 600 will be served at full implementation in the 2012-2013 academic year.

Academy Description: The Governor's Career and Technical Academy in Arlington promises a unique, jointly administered Career and Technical Education (CTE) Center, offering area CTE students an optional five-year high school diploma/two-year college degree program. The Academy will be located within the Arlington Career Center and will open its doors in the fall of 2008 as a part-day program. Students will participate in featured dual enrollment CTE courses and supporting workplace activities, along with continued study at their respective home schools. Over the next several years, an increasing number of CTE and academic subjects will be offered until the Academy also offers full-day programs as a comprehensive school.

The Academy's science, technology, engineering and mathematics (STEM)-infused

curriculum will initially feature programs within five pathways: Audio and Video Technology and Film; Engineering and Technology; Facility and Mobile Equipment Maintenance; (Health Science) Support Services; and Information Support and Services. Additional programs in other pathways will be added as the Academy develops, providing broader academic and employment opportunities for more students. Virginia Polytechnic Institute and State University will provide staff development in Integrative STEM Education, helping the Academy assimilate a cross-disciplinary pedagogy in STEM/CTE education.

Expected student outcomes include improved high school graduation rates and enrollment in postsecondary education, as well as the reduced need for remediation and an increase in college student retention, transfer, and graduation. Relevant preparation for employment will be a hallmark of the Academy. Improvement in these areas will be effected through increasing STEM and CTE academic integration, strengthening the five featured pathways, training staff and raising awareness in STEM education, and improving data collection for continuous program improvement. Students will learn subject matter as appropriate through discovery, analysis, inquiry-based research, and on-the-job experience.

Highlights:

- The Governor’s Academy will be a joint secondary/postsecondary institution.
- Dual enrollment opportunities will exist for grades 11, 12, and beyond.
- Cross disciplinary pedagogy informed by Virginia Polytechnic Institute and State University’s I-STEM Education program will be the major focus of staff development for teachers.
- The flexible academy model will incorporate several pathways beyond the initial five over time.
- Student job shadowing and internships will be available across a variety of disciplines.
- Optional Stretch projects will introduce students to real work-related projects.
- Involved business partners will assist in keeping curriculum relevant.
- Summer college coursework will be available.
- Students will be better prepared for work and additional higher education opportunities.

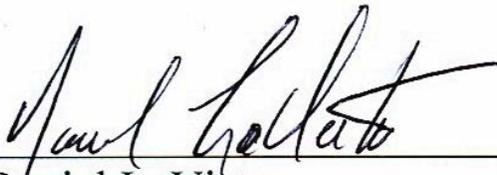
**The State Council of Higher Education for
Virginia**

**Review of Governor's Career and Technical
Academy Proposal**

Name of Lead Entity on Proposal: Northern Virginia Community
College and Arlington Public Schools

Date of Review: May 22, 2008

The State Council of Higher Education for Virginia recommends
approval of NOVA Governor's Career and Technical Academy as
a Governor's Career and Technical Academy.



Dr. Daniel LaVista
Executive Director
State Council for Higher Education

5.23.08

Date

*State Council of Higher Education for Virginia***Governor's Career and Technical Academies****Postsecondary Curriculum Review Checklist**

Academy Name	Collaborating Partners	Total Funds Requested	Allocated Funds for Postsecondary Component
Governor's Career and Technical Academy in Arlington	Northern Virginia Community College, Arlington Public Schools (see proposal for a complete list)	\$100,000	N/A

Criteria**Category 1: Postsecondary Accreditation and Approvals****YES/NO**

- YES **Postsecondary institution is appropriately accredited**
- NA **Proposed postsecondary program has specialized accreditation, if applicable**
- YES **Proposed postsecondary program is SCHEV and/or VCCS approved**
- NO **Proposed postsecondary program will be seeking SCHEV and/or VCCS approval**

Category 2: Governor’s Career and Technical Academy Requirements

YES/NO

- YES **Evidence of a partnership with a postsecondary institution, business, or industry, and demonstrated roles for each entity**

- YES **Offers at least one career pathway in a field identified by a statewide authority or organization as a strategic growth area for Virginia**

- YES **Offers at least one career pathway addressing regional and local work force demand in a high-wage, high-skill field identified by employers and work force officials**

- YES **At least one of the two career pathways is in a STEM-related field**

Category 3: Postsecondary/Business Component Requirements

YES/NO

- YES **Provides opportunities for students to earn industry credentials or state licensure, associate or baccalaureate degrees, and college credit for work-based experiences**

- YES **Articulates with baccalaureate programs or to higher levels of training or professional credentialing**

- YES **Demonstrates P-16 integration including curriculum development with high school, college, and university faculty (desired)**

- YES **Includes college faculty as adjunct faculty of the academy (desired)**

- YES **Provides opportunities for students to participate in work-based experiences**

Category 4: Academic Quality

YES/NO

- YES **Requires appropriate postsecondary faculty qualifications**
- YES **Requires faculty to hold industry certification, where necessary**
- YES **Planned professional development for faculty and administrators**
- YES **Planned systematic program and learning outcomes assessment**

Category 5: Administration and Funding

YES/NO

- YES **Funding is sufficient to support effective administrative and operational needs including materials, administrative personnel, and facilities**
- YES **Funding is sufficient to sustain faculty salaries, curriculum development costs, and instructional materials and delivery**
- YES **Facilities possess the necessary physical attributes to deliver the instructional program (classroom space, technology, labs, equipment)**

Comments

This is an excellent program proposal with strong objectives, guiding principles, and implementation plans.

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

Final Review

Title of Proposal: Governor's Career and Technical Academy
in Arlington

Lead Entity for Proposal: Northern Virginia Community
College

Date of Review: May 3, 2008

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

I. Partnership Capacity

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. An active, ongoing planning committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity. At a minimum, members must represent K-12 education (superintendent or designee), higher education, and business and industry. All partners must be represented on the committee.	X			
B. An advisory committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity.	X			
C. A written memorandum of agreement among school divisions, local businesses, postsecondary institutions, and any other partners that outlines ways in which community resources will contribute to the Governor's Career and Technical Academy to broaden the scope of students' educational experiences.	X		X	<p>5/3 There are no signatures to accompany the memorandum.</p> <p>6/9 The signatures have been included in the proposal.</p>

Criteria	Documentation			Comments
	Full	Partial	None	
D. A statement of assurances that the Governor's Career and Technical Academy Planning Committee has reviewed provisions of <i>Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies</i> and agrees to follow the guidelines set forth in the document (see appendix).	X			
E. A statement of assurances that, if applicable, an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs (see appendix).	X			
Comments:				

II. Need/Rationale for the Academy

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. Demonstration of the need/rationale for the Academy. This statement should be concise and state the major reasons to have a Governor's Career and Technical Academy, including need at the state, local and/or regional levels.	X			
B. A description of the enhanced or additional offerings in science, technology, engineering, and/or mathematics (STEM) that will meet the need described above.	X			5/3 Please be more specific about the five-year plan and how it impacts high school graduation.

Criteria	Documentation			Comments
	Full	Partial	None	
C. A fiscal agent that is a public entity, including a certification that the entity is willing and able to serve in that capacity.	X			
Comments:				

III. Program Description

Each Governor’s Career and Technical Academy planning committee shall develop cooperatively with local school divisions, business, community, and higher education partners and have available for review and dissemination, a program description that includes:

A. A statement of program goals addressing the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Rigorous academic content in career and technical instruction;	X	X		5/3 In the Audio and Video Technology and Film pathway there is not enough science listed to meet the requirements for graduation. 6/9 The science requirement has been met and is correctly listed in Appendix H.
2. An emphasis on STEM career pathways;	X			
3. Individualized high school plans to ensure course selections that are aligned with students’ transition and career goals after high school;	X			

Criteria	Documentation			Comments
	Full	Partial	None	
4. Evidence that graduates will complete a college and work readiness curriculum, minimally at the level specified for Commonwealth Scholars Course of Study (State Scholars Core) with the possibility of pre-approved substitution of equivalent courses where there may be more relevant course selections for a particular career pathway;	X	X		5/3 See previous comment about science requirements. 6/9 The science requirement has been satisfied and is listed in Appendix H.
5. Evidence that graduates will qualify for the Technical and/or the Advanced Technical Diplomas; and	X			
6. Incorporation of Virginia's Workplace Readiness Skills.	X			
Comments: While not required, the partnership should consider adding Earth Science to the choices students have to complete their high school academic science requirements.				

B. A statement of program objectives and performance measures to:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Improve academic achievement of Academy students;	X			
2. Increase completion of dual enrollment courses;	X			
3. Provide workplace readiness experiences for students through strong partnerships with businesses;	X			
4. Increase high school graduation rates;	X			

Criteria	Documentation			Comments
	Full	Partial	None	
5. Reduce dropout rates;	X		X	5/3 The proposal needs to be more explicit with its dropout rate objective. 6/9 Dropout rate reduction has been quantified.
6. Increase enrollment and retention in postsecondary education;	X			
7. Increase the proportion of students completing a college and workplace ready curriculum in high school;	X			
8. Reduce the proportion of students requiring remediation in college;	X		X	5/3 The proposal needs to be more explicit with this objective. 6/9 This objective has been satisfied.
9. Increase the number of industry certifications awarded to high school students; and	X			
10. Increase the number of graduates employed in high-wage, high-demand and high-skill careers.	X			
Comments:				

C. A brief description of the proposed program, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Site location;	X			
2. Number of students to be served;	X			
3. Grade levels;	X			
4. General curriculum design;	X			
5. List of courses to be delivered;	X			

Criteria	Documentation			Comments
	Full	Partial	None	
6. Description of how/where the courses will be delivered. Courses may be delivered on a high school, technical center or community college campus, online, or in other innovative ways; and	X			
7. Designation of full-day or part-day, academic-year program.	X			
Comments:				

D. Evidence of participation in the Governor’s Exemplary Standards Award Program for Career and Technical Education.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Program and course descriptions

E.1. At least two well-articulated career pathways must be included that meet the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #1: Information Technology				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor’s and	X			

Criteria	Documentation			Comments
	Full	Partial	None	
graduate levels. These pathways may be in the same or different career clusters.				
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and motor sports, as well as modeling and simulation and nanotechnology or	X			
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. At least one pathway must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #2: Engineering and Technology				
a. Each career pathway must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees	X			

Criteria	Documentation			Comments
	Full	Partial	None	
while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor's and graduate levels. These pathways may be in the same or different career clusters.				
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and motor sports, as well as modeling and simulation and nanotechnology, <u>or</u>	X			
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. Of the two pathways described, at least one must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or the state.	X			
e. Additional career pathways may address one of the areas described above, or an area identified by the partnership as an area of interest, growth, or expansion for students in the service area of the Academy.	X			This proposal addresses five pathways and should be commended for offering so many opportunities to students. The additional pathways are listed on p. 8 of the proposal.
Comments:				

E.2 List of all requirements for successful program completion.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E.3 Academy graduates must achieve one or more of the following benchmarks:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as CLEP examinations, collaboratively designed or mutually approved end-of-course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; <u>or</u>	X			
b. Earn at least 9 transferable college credits as defined in the Early College Scholars program (includes dual enrollment, AP and other options); <u>or</u>	X			
c. Earn an Associate Degree.	X			
Comments:				

E.4 Significant work-based experience must be included representing additional instruction or training beyond the classroom such as:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Cooperative Education; or	X			
b. Internships; or	X			
c. Job Shadowing; or	X			
d. Mentorships; or	X			
e. Project-based learning; or	X			
f. Service learning; or	X			
g. A combination of the above.	X			
Comments:				

F. Length of program and daily schedule: Governor's Career and Technical Academies are defined by program content, not by the location or delivery system of courses. Evidence of the following must be submitted:

Criteria	Documentation			Comments
	Full	Partial	None	
Designation of full-day or part-day, academic-year program.	X			
Comments:				

G. Assurance from the fiscal agent that operating funds and facilities are available to support the Governor's Career and Technical Academy and are adequate to meet the needs of the program

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Materials and equipment to be provided to accomplish program goals and objectives.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

I. Evidence of an internal evaluation process to effect program improvement, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. A review of the Academy’s policies, procedures, and outcomes;	X			
2. A review of the program design and instructional delivery;	X			
3. Consideration of feedback from students, staff, parents, the community, and partnership members; and	X			
4. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.	X			
Comments: The committee suggests use of the Secondary Enrollment Data form as part of the analysis.				

IV. Administrative Procedures

Each Governor's Career and Technical Academy must develop and maintain procedures developed cooperatively with participating partners. There should be evidence of procedures in the four areas that follow.

A. Partnerships - The role of business and industry, public school divisions, and postsecondary institutions in the partnership. The role of work force and economic development entities should also be included if they are among the partners.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

B. Student recruitment, selection criteria, and admissions.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

C. Code of student conduct and attendance.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments: 5/3 This item is not addressed in the proposal. 6/9 Reference to the student code of conduct appears in the proposal.				

D. Transportation provided by the school division or consortium that is in compliance with all applicable federal and state regulations.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Staff recruitment, selection, and assignment - The Governor’s Career and Technical Academy shall hire staff members who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

F. Staff development - The program will provide appropriate staff training in addition to staff planning time.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments: There is a strong connection between the STEM program at Virginia Tech and this proposal for staff development.				

G. Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employing Academy personnel.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Parent, student and community involvement

Criteria	Documentation			Comments
	Full	Partial	None	
1. Preparation for entering the Academies should begin by eighth grade.	X			
2. Students, parents, teachers, and counselors should work collaboratively to:	X			
a. Complete career interest inventories;				
b. Prepare academic and career plans outlining an intended course of study in high school;	X			
c. Review multiple postsecondary pathways and the steps required to pursue them;	X			
d. Participate in career assessments to identify areas students should strengthen to qualify for their selected pathways; and	X			
e. Discuss available diplomas, seals, and other recognitions including admission to specialized programs such as Governor's Academies.	X			

I. Documentation of insurance, budget, and other fiscal information.

	Documentation			Comments
	Full	Partial	None	
Insurance	X			
Budget (from appendix)	X			
Budget Narrative	X			
Other				
Comments:				

A Proposal to Establish
The Governor's Career and
Technical Academy in Arlington



Submitted by

Northern Virginia Community College



and

Arlington Public Schools



June 19, 2008

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I. Partnership Capacity

The partnership desiring to implement a Governor's Career and Technical Academy in Arlington hereby provides the Virginia Department of Education with evidence regarding required committees, agreement, and assurances.

Committees

The proposed Governor's Career and Technical Academy in Arlington is supported by ongoing planning and advisory committees that consist of members who are willing and able to serve in their respective capacities. All partners in the Governor's Career and Technical Academy in Arlington are represented on the planning committee, which will report to the advisory committee. Please refer to Appendix A for a detailed list of planning and advisory committee members and their professional titles and affiliations. These members represent secondary education; higher education; science, technology, engineering, and mathematics interests; career and technical education; and business and industrial concerns. The two committees will support the Governor's Career and Technical Academy in Arlington by ensuring that decisions and actions are aligned with the strategic vision and policies of the participating institutions and by pursuing additional resources to support the Governor's Career and Technical Academy in Arlington. Both committees have begun to oversee progress towards implementation.

Memorandum of Agreement and Assurances

The partnership seeks to open the Governor's Career and Technical Academy in Arlington in September 2008, providing a science, technology, engineering, and mathematics (STEM)-enriched career and technical education (CTE) curriculum. Appendix B provides the Memorandum of Agreement, which outlines the responsibilities and contributions of partners toward improving collaborative CTE/STEM student opportunities and outcomes. Additional support is represented by the full membership of the planning and advisory committees.

II. Work Force Needs and the Governor’s Career and Technical Academy in Arlington

Introduction

The Washington metropolitan area, especially Northern Virginia, has grown immensely over the past decade and has become one of the most economically vibrant regions in the country. The population increased by 350,000 in Northern Virginia between 1990 and 2000. Projected growth in the area between 2000 and 2010 is expected to exceed 300,000. At the same time, the demand for highly-skilled and educated workers is on the rise due to emerging regional and statewide employment sectors within an expanding knowledge economy. From information technology to health care, transportation, engineering, digital media, and other fields, the numbers of qualified workers cannot keep up with demand. A rigorous and relevant model for student preparation is needed to address the demand for qualified workers and to provide a model that can be readily replicated throughout Virginia.

Arlington County Public Schools and Northern Virginia Community College help students plan and prepare for transition to higher education and employment through programs that lead to myriad career opportunities, sometimes via transfer to a university. Students in career and technical education (CTE) programs require rigorous educational preparation to participate in high-wage, high-demand career fields. These students also require the acquisition of Workplace Readiness Skills¹, as these students frequently seek employment immediately after high school graduation. The need to prepare students for Virginia’s knowledge economy through science, technology, engineering, and mathematics (STEM) enriched CTE curricula will be answered by the Governor’s Career and Technical Academy in Arlington.

The Governor’s Career and Technical Academy in Arlington will help address these needs through five pathways described within the federal Career Clusters organizational chart:

- Engineering and Technology
- Audio and Video Technology and Film
- (Health Science) Support Services

¹ Workplace Readiness Skills include reading, mathematics, writing, speaking and listening, computer literacy, problem solving, seeing the “big picture,” work ethic, positive attitude, independence and initiative, self-presentation, attendance, and working as a team member.

- Information Support and Services
- Facility and Mobile Equipment Maintenance

Commonwealth and Regional Needs

In its *Gap Analysis of Virginia's Policy Landscape*, the National Governors Association Center for Best Practices notes a "...lack of core skills and abilities among high school graduates...as evidenced by postsecondary remediation data and reports from college faculty and employers." This gap in skills is increasing as the requirements for many of today's jobs and tomorrow's emergent careers require a greater student capacity to integrate fundamental concepts of science, technology, engineering, and mathematics into their daily work. Production of workers through the Virginia education system having "...specialized postsecondary and occupational training such as technicians, technologists, and skilled labor," falls short of projected demand in those fields, given the projected 40 percent retirement of current workers from these occupations.² The current capacity to replace those workers is inadequate. The training of high school students to pursue high-wage jobs requiring skills in technical fields has lagged behind current and projected demand for the Commonwealth. This growing demand is presented in Appendix C.

Surveys of occupations with the largest anticipated increases in employment in Virginia in 2002-2012³ show shortages in the following careers:

- network systems and data communications analysts;
- medical assistants;
- database administrators;
- veterinary technologists and technicians;
- physical therapist assistants;
- personal financial advisors; and
- computer software engineers and application specialists.

As the opportunities created by STEM-enriched education are realized, this list will expand. These fields currently are missing the innovative opportunity that STEM education will provide to all workers. The *Governor's Workforce Development Strategic Plan* envisions a

² Governor's 2007 Summit on Manufacturing, Workforce Development: *Moving Virginia Forward*. July 23-24, 2007—Danville, Virginia.

³ Virginia Workforce Council, *Workforce Development Blueprint* (2002).

response “to long-range talent and skills forecasts as well as emergent near-term market and business needs.”

A recent study of *The Health Care Workforce Shortage: An Update on the Scope and Impact of Northern Virginia*⁴ illuminates the shortages across the cities and counties of Northern Virginia. The raw population growth statistics and a comparison of anticipated occupational shortages convincingly show that Northern Virginia will grow by 23.2 percent compared with a national estimate of 12.6 percent. The population is expected to grow from 2,066,363 in 2006 to over 2,545,000 by 2020. Critical health care work force vacancy rates of over 15 percent will emerge in the pool of available CT scanning technologists, occupational therapists, physical therapist assistants, physical therapists, and speech language pathologists. Shortages of 5 to 14.9 percent also are expected in the following categories:

- phlebotomists;
- registered nurses, LPNs, and medical and nurse managers;
- emergency medical technicians and medical and clinical lab technicians;
- MRI technologists and respiratory therapists;
- pharmacists and pharmacy technicians and radiologic technicians; and
- many other technicians involved in lab work and medical information management.

This group represents the technical support personnel without whom the engines of commerce and development of new industry will not thrive. The personnel required in health care, finance, transportation, and communications, in addition to the classic technology-based business innovators, will drive change through the growth of markets. The regional entrepreneurs will then be able to increase the numbers of jobs and the gross domestic product, and provide the services required by the economy.

With emphasis on five STEM-related pathways, the Governor’s Career and Technical Academy in Arlington will help to meet the need for qualified technicians and for the entrepreneurs who will drive employment and regional growth while connecting Virginia to the global marketplace. On average in the five pathways, a 7 to 14 percent growth in employment is anticipated over the next five years. See Appendix D for assurances that the Academy will meet the needs as outlined by the criteria set by the Virginia Board of Education and Appendix E, Gap Analysis, for details on how the Governor’s Career and Technical Academy in Arlington will

⁴ This report was conducted by Price Waterhouse Coopers for The SkillSource Group and released in January 2008.

help meet the need of rising cohorts of students in Northern Virginia in information support and services and facility and mobile equipment maintenance. At the same time, the Governor's Career and Technical Academy in Arlington will provide an optional five-year high school/two-year college degree for meeting the need across Virginia.

Meeting the Need

Arlington Public Schools and Northern Virginia Community College, in partnership with Virginia Polytechnic Institute and State University (Virginia Tech), other higher education, industries and businesses, propose to open a Governor's Career and Technical Academy in Arlington in September 2008. The Governor's Career and Technical Academy in Arlington will provide a collaborative learning community for integrated STEM education in five initial career and technical education career clusters, listed in Table 1.

Table 1: Federal Career Clusters and Pathways to be offered at the Governor's Career and Technical Academy in Arlington

Career Cluster	Pathway
Science, Technology, Engineering and Mathematics	Engineering and Technology
Arts, Audio/Video Technology & Communications	Audio and Video Technology and Film
Health Science	Support Services
Information Technology	Information Support and Services
Transportation, Distribution and Logistics	Facility and Mobile Equipment Maintenance

According to the Virginia Employment Commission, computer-related careers (e.g., programming, network analysis, database administration) are among the 20 fastest-growing occupations in Virginia. Projected job openings are expected to increase between 48 and 69 percent from 2002 to 2012. According to the report *Human Capital: Greater Washington Knowledge Worker*⁵, regional growth of 28 percent is projected for the greater Washington, D.C. region between 2005 and 2014, with a projected increase in positions from 219,950 to 281,540. The Information Support and Services pathway featured at the Governor's Career and Technical

⁵ A publication of the Greater Washington Initiative issued in 2007. Please see www.greaterwashington.org

Academy in Arlington will prepare interested students for careers and additional education through a variety of college certificate and associate degree programs.

The Northern Virginia Workforce Investment Board projects 14 percent growth for the Northern Virginia region in automotive service technology (within the Facility and Mobile Equipment Maintenance career pathway) by 2016. Virginia's outlook projects 16.5 percent growth for automotive technicians statewide, compared to 14.3 percent national growth. Through an associate degree program, automotive technology students in the Governor's Career and Technical Academy in Arlington will be offered a curriculum with a greater emphasis on mathematics and science than they might otherwise receive.

The Governor's Career and Technical Academy in Arlington will meet the needs that have emerged and are anticipated to emerge in health care, engineering, automotive, information technology, and digital media.

The framework of the Governor's Career and Technical Academy in Arlington, an optional five-year high school/two-year college degree program, will provide students an opportunity to earn a high school diploma and associate degree in five years. In short, this framework will allow many graduates to complete a portion of their baccalaureate degree at no out-of-pocket costs to them or their families. At the same time, the STEM-enriched curricula combined with CTE programs of the Governor's Career and Technical Academy in Arlington will enable more students to earn the proposed Technical and Advanced Technical Diplomas. Students can be confident in the education they receive at the Governor's Career and Technical Academy in Arlington, knowing that featured pathways address current and anticipated regional and statewide work force demands. The Governor's Career and Technical Academy in Arlington will strengthen student career readiness by offering the Virginia Workplace Readiness⁶ curriculum. The purpose is to prepare students for critical need, high-wage careers through internships, job shadowing, cooperative education, and other business partner activities.

⁶ Governor Tim Kaine endorsed the Virginia's Workplace Readiness Skills Curriculum when he sent Dr. Thomas Morris, the Governor's Secretary of Education, to the Technical and Career Education Awards Celebration in May 2006. Dr. Morris delivered remarks from the Governor to celebrate the curriculum and honor the 13 teacher writers from Virginia Beach City Public Schools (VBCPS). The awards ceremony featured a video clip of the Governor's endorsement that provided a rationale for teaching Workplace Readiness Skills in CTE in core classrooms and work force development centers.

To meet the ambitious goals of establishing a Governor’s Career and Technical Academy in Arlington in September of 2008, an intensification of recordkeeping and tracking of student academic performance will be instituted. Additional personnel will be assigned these duties and new systems will be put in place to provide the benchmarks and baseline data required for a rigorous measurement of performance. Please see Performance Measures and Objectives on page 14 for a more comprehensive discussion of data driven management.

Academy Objective Summary

Develop an optional 5-Year High School/2-Year College Degree Program

1. Increase STEM/CTE curricular integration.
2. Strengthen the five featured pathways.
3. Train staff and raise awareness in Integrative-STEM pedagogy.
4. Increase high school graduation and postsecondary enrollment and retention.
5. Improve data coordination and collection for continuous program improvement.

III. Program Description

Operational Plan

The Governor’s Career and Technical Academy in Arlington will be organized around the four overarching principles which were identified by Dr. Bill Daggett, president of the International Center for Leadership in Education and a proven leader in school reform focused on rigor and relevance. The principles are:

- Rigorous academic and technical achievement;
- Relevance—providing workplace readiness and marketplace connections;
- High-level projects incorporating academic and CTE competencies, otherwise known as Stretch Projects; and
- Student engagement with school and community.

These principles will guide program development and implementation of the Governor’s Career and Technical Academy in Arlington in five pathways:

1. Engineering and Technology
2. Audio and Video Technology and Film
3. (Health Science) Support Services
4. Information Support and Services
5. Facility and Mobile Equipment Maintenance

The number of career pathways offered through the Governor’s Career and Technical Academy in Arlington will expand as student interests and numbers increase over the three- to five-year implementation of this jointly administered high school program.

Northern Virginia Community College provides dual enrollment courses offered at off-site locations such as the Arlington Career Center. Under the partnership to establish a Governor’s Career and Technical Academy in Arlington, Northern Virginia Community College works collaboratively to lift existing high school curricula to the college level. For more than a decade, the Arlington Career Center has offered a number of courses articulated with Northern Virginia Community College. Dual enrollment courses have already been established in transportation and digital media. Through the Governor’s Career and Technical Academy in Arlington, the Arlington Career Center will strengthen its partnership with Northern Virginia Community College to offer on-site, dual enrollment courses in each of the five pathways. Over

time, Northern Virginia Community College courses in academic subjects will be offered on-site at the Governor's Career and Technical Academy in Arlington.

The overarching goal of the Governor's Career and Technical Academy in Arlington is to make it possible for students to satisfy the Commonwealth Scholars Course of Study (see Appendix F) in four years, receive a high school diploma at the end of grade 12, and earn an associate degree in five years. Graduates will be encouraged to transfer to four-year institutions such as Virginia Tech and George Mason University. Those holding an associate of science or an associate of arts degree will be prepared to transfer into and successfully complete their baccalaureate degree. It should be noted that students will not be required to participate in the five-year program. No students in the Academy will be denied high school diplomas in four years if they complete the diploma requirements.

A distinguishing feature of the Governor's Career and Technical Academy in Arlington will be encouragement of student engagement in high-level work known as Stretch Projects, which integrate academic and technical competencies. Stretch projects are made possible through engaging industry and community partners. Two examples of Stretch projects completed through the Arlington Career Center are the high-definition promotional video produced and edited for the Arlington County Police Department, and the *CanDo* competency tracking computer software produced by computer science students in conjunction with the Shuttleworth Foundation and Thomas Jefferson High School for Science and Technology. Projects such as these will be developed and integrated into the curriculum for each of the five pathways. The grant will allow Arlington Public Schools to work closely with academic partners, especially Virginia Tech, to train staff of the Governor's Career and Technical Academy in Arlington in applying this rigorous Integrative-STEM⁷ approach to all five initial pathways and to future pathways as they are launched.

The Governor's Career and Technical Academy in Arlington's team of data collection professionals will track student acquisition of Workplace Readiness Skills, subject matter competencies, and academic achievement. Arlington Public Schools will determine whether each student meets criteria to qualify for the technical seal on his or her diploma and will confer the seals. Data from the Governor's Career and Technical Academy in Arlington will be integrated

⁷ Integrative STEM (I-STEM) is an educational approach originated at Virginia Tech to develop 21st-century K-16 educators, leaders, scholars, and researchers who are prepared to investigate, teach, and disseminate new integrative approaches to STEM teaching and learning. See Appendix I for complete explanation.

into school system records and will be reported for both formative and summative evaluation purposes. Staff from both Northern Virginia Community College and Arlington Public Schools will analyze data related to program offerings, ensuring accuracy, data security, and access to aggregate data by all stakeholders.

Counseling is a key component for the Governor's Career and Technical Academy in Arlington because it allows students, parents, and other stakeholders to learn about this opportunity beginning in elementary and middle school. Arlington Public Schools has embraced a system of six-year plans for all students, beginning in sixth grade using a template of career and academic interest pathways known as Exploring and Mapping Academics and Careers. Northern Virginia Community College will ensure that students in the Governor's Career and Technical Academy in Arlington have a qualified career coach available on-site who can help them plot individual academic careers using the five established pathways and additional pathways that emerge as the implementation program reaches maturity.

Success of the Governor's Career and Technical Academy will depend on promoting the career pathways to counselors from feeder high schools and helping them to identify rising middle school students. The enrollment process will engage counselors, school staff, parents, students, and the community as critical components in communicating attainable program goals. Tracking and focusing of curricula to effectively feed students to the Governor's Career and Technical Academy in Arlington will require oversight by administrators and policymakers for all institutions involved, due to the dynamic nature of the educational program. Course content, cluster components, and pathway exits and entrances will be affected by ongoing changes in education theory and practice, the labor market, and larger economic movements. The Northern Virginia Tech Prep Consortium will support a professional career coach as part of its annual Tech Prep Proposal to the Virginia Community College System, effective for the 2008-2009 academic year. For three years, Tech Prep funds will provide \$15,000 per year for the career coach position, which thereafter will be funded from renewable sources of support generated by dual enrollment. The career coach will ensure that individual students seeking dual enrollment and the optional five-year associate degrees are on track for completion of their academic paths. In addition, the career coach will help to reinforce the rigorous dual enrollment standards, allowing credit earned to be transferred to baccalaureate programs as appropriate.

Among the more substantial benefits available to students under the Governor’s Career and Technical Academy in Arlington will be the possibility of earning an associate degree within five years. This will provide powerful financial incentives for many students who will have earned a number of college credits while earning their high school diploma.

Performance Measures and Objectives

The Governor’s Career and Technical Academy in Arlington has developed an Integrative STEM program with the primary objective of preparing students to compete in the 21st-century global work force. The program utilizes nationally-recognized best practices drawn from the Rigor/Relevance Framework, a tool developed by the International Center for Leadership in Education. The performance measurements based on the practices of the framework will be established as students and classes enter the Governor’s Career and Technical Academy in Arlington. For example, Standards of Learning (SOL) scores from the previous year will be affixed to student records and performance against that baseline will be measured for that individual and their cohort. Student grades, competency records, and dual enrollment classes will also be placed within the Rigor/Relevance Framework. Finally, student performance in postsecondary careers will be tracked. Workplace Readiness Skills, Stretch Projects, and engagement with the school and community⁸ will be tracked and measured accordingly. The Rigor/Relevance Framework follows:

- 1) Rigorous Academic and Technical Achievement
 - SOL scores
 - Grades
 - Competency attainment
 - Advanced Placement Classes
 - Dual enrollment
 - Postsecondary enrollment
- 2) Relevance in Workplace Readiness and Marketplace Connections
 - Workplace Readiness curriculum completion
 - Internships
 - Job shadowing

⁸ See item 4 on page 15 for an explanation.

- Employment in relevant high-technology positions
 - Industry certifications
- 3) Stretch Projects for Students
- SkillsUSA™ and DECA™ competitions and co-curricular activities
 - Research projects based on the Gemstone Program⁹
 - Projects for clients (e.g., promotional videos for Arlington Police Department, Arlington Fire Department, and the Arlington Career Center)
- 4) Student Engagement with School and Community
- Community Focus Projects
 - Academy Ambassador Program (Students represent the institution during community and school activities)
 - High school four-year cohort, two-year transfer and four-year college graduation rates (also measures dropout rate)
 - Proportion of students requiring remediation in college

Baseline information for the above measurements will be derived from Arlington Public Schools and Northern Virginia Community College outcomes for the 2007-2008 academic year. Immediate benchmarks such as dual enrollment courses and number of industry certifications attained will improve by 10 percent by the completion of the 2008-2009 academic year. Long-term efforts, such as improvement of SOL scores and dropout rate, decrease in number of students requiring remediation in college, and increase in postsecondary enrollment, will show a 10 percent improvement after full program implementation in 2011-2012. The Governor's Career and Technical Academy in Arlington will foster collaborative efforts, identify obstacles to overcome, and seek to improve student results through continuous feedback.

One advantage of a new institution is the opportunity to collect comprehensive information for performance evaluation. Longitudinal studies will collect both qualitative and quantitative data. A data committee will be responsible for collection, disaggregation, and

⁹ The Gemstone Program at the University of Maryland is a unique, multidisciplinary, four-year research program for selected undergraduate honors students of all majors. Under guidance of faculty mentors and Gemstone staff, teams of students design, direct and conduct significant research, often but not exclusively, exploring the interdependence of science and technology with society. Gemstone students are members of a living-learning community comprised of fellow students, faculty and staff who work together to enrich the undergraduate experience. This community challenges and supports the students in the development of their research, teamwork, communication and leadership skills. In the fourth year, each team of students presents its research in the form of a thesis to experts, and the students complete the program with a citation and a tangible sense of accomplishment.

dissemination of reports on progress to all stakeholders. This essential data for administrators and teachers will be shared using the *Data Wise* (YEAR) framework, a resource guide under development for the Governor's Career and Technical Academy in Arlington that will be available for beta testing this summer and in place by September 2008. *Data Wise* was created by faculty and doctoral students at the Harvard Graduate School of Education to serve as a catalyst for school improvement. Data will be evaluated on a periodic basis to reinforce the internal data collection and analysis described above.

The Program

Upon approval, the Arlington Career Center will expand upon its existing programs in September 2008 by hosting the Governor's Career and Technical Academy in Arlington. To start the first year, at least 10 students from grades 11 and 12 are expected to enroll in each featured pathway. The first students may continue to take core academic classes at their respective home schools while they pursue their STEM/CTE classes as a half-day program at the Governor's Career and Technical Academy in Arlington. These students may also meet their remaining high school academic and CTE requirements through dual enrollment courses at the Governor's Career and Technical Academy in Arlington. Several dual enrollment academic courses will be offered this first year to address the common academic requirements of featured career pathways. The first graduates of the Governor's Career and Technical Academy in Arlington will leave high school with more college credit than previously available to CTE students in Arlington.

Over the next three academic years, the Governor's Career and Technical Academy in Arlington will be transformed from a modest collection of dual enrollment courses to a school with articulated pathways to college and work for grades 9 through 13. Additional dual enrollment Northern Virginia Community College and Arlington Public Schools academic courses will be offered at the Governor's Career and Technical Academy in Arlington, making it possible for students to earn a high school diploma and associate degree in five years. At full implementation, the Arlington Career Center will become the Governor's Career and Technical Academy in Arlington in name and purpose. As a school of enrollment, the Governor's Career and Technical Academy in Arlington will continue to feature STEM/CTE programs, while integrating current Arlington Career Center programs into a synergistic whole. CTE students will

have the opportunity to move seamlessly between STEM and non-STEM disciplines based on their own interests, capabilities, and challenges.

This model will accommodate students with a broad range of interests and abilities, giving them an opportunity to complete a community college certificate or degree by the end of grade 13. For example, automotive technology students will be prepared for work and onward study with an associate of applied science degree. Information technology students will have two options: an associate of applied science degree or an associate of science degree, which will enable them to transfer to a university. Engineering students may elect to take a rigorous academic course of study, earning a transferable associate of science degree. Health care students will have the opportunity to complete career studies certificates that can lead to employment and meet prerequisite requirements for additional study in allied health and nursing career fields. Plans for the Audio and Video Technology and Film career pathway include an associate degree in social science or liberal arts, with a specialty in communication in the digital age. This degree would prepare students for transfer to four-year universities. Students in pathways lacking a related degree option often share an interest in entrepreneurship and will be offered the option of a supplementary degree in business. The Governor's Career and Technical Academy in Arlington will be known for STEM and CTE programs of excellence, building upon Arlington Public Schools and Northern Virginia Community College's reputation for salient academic programs. (See Appendix G for a complete list of certifications for which Arlington Public Schools and Northern Virginia Community College prepare students.)

Exemplary Standards

The Arlington Public Schools Office of Career, Technical, and Adult Education has instituted an Exemplary Standards Program, whereby all CTE instructors document their programs against 40 nationally recognized standards. This program is implemented, in part, to comply with Arlington Public Schools' policy for accountability and evaluation, requiring systematic evaluation to encourage continuous school improvement. The program is conducted on an ongoing six-year cycle.

The Office of Career, Technical, and Adult Education implemented the Exemplary Standards evaluation process to provide some of the data necessary to consistently evaluate the many career and technical education programs in the Arlington Public Schools. A national

advisory committee of experts in career and technical education worked with the National Dissemination Center for Career and Technical Education at Ohio State University to develop a series of criteria to describe the components of exemplary career and technical education programs. The criteria are intended to describe best practices of career and technical education programs at the secondary level and point toward data that technical and career educators should collect and analyze to identify programs and areas for improvement. The Arlington Public Schools Exemplary Standards Program Evaluation was modeled on national criteria and benchmarks. To date, almost 20 CTE programs have completed their documentation and evaluation (see Table 2).

A review of Arlington Public Schools Exemplary Standards Program's evaluation benchmarks and the Governor's Exemplary Standards Award Program's proposed standards reveals close ties between the two programs. A majority of Arlington Public Schools pathways are in the evaluation process for 2007-2008 or have already been evaluated. The Governor's Career and Technical Academy in Arlington will have eight programs that could submit data for the Governor's Exemplary Standards Awards Program as early as the 2008-2009 school year. The Secondary Enrollment Demographics Form¹⁰ will also be submitted as part of collection and analysis. The Governor's Career and Technical Academy in Arlington will replace the Arlington Public Schools Exemplary Standards Program with the Governor's Exemplary Standards Awards Program, and will train all personnel on compliance.

¹⁰ The Secondary Enrollment Demographics Form collects class enrollment and demographic data on Career and Technical Education classes in grades 6–12. The data is used to determine career and technical Standards of Quality (SOQ) funds for local school divisions and to calculate Non-Traditional Career Preparation Enrollment.

Table 2: Arlington Public Schools Exemplary Standards Program Evaluation Results

<i>Technology and Trade & Industrial</i>		
Television Production	2005/May	Exemplary
Animal Science	2006/May	Exemplary
Forensics	2006/May	Exemplary
Auto Body	2006/May	Achieving
Computer Systems Technician	2006/May	Achieving
Aviation	2007/June	Exemplary
Cosmetology	2007/May	Exemplary
Carpentry	2007/May	Improving
<i>Family and Consumer Sciences</i>		
Family and Consumer Sciences	2006/May	Exemplary
Early Childhood	2007/May	Exemplary
<i>Business and Information Technology</i>		
Classroom on the Mall	2007/May	Exemplary
Banking and Finance	2007/May	Exemplary
Business, High School	2007/May	Achieving
Business, High School	2006/May	Exemplary
Business, Middle School	2006/May	Exemplary
Business, Middle School	2006/May	Exemplary
Business, Middle School	2006/May	Exemplary
Business, Middle School	2007/May	Exemplary
Business, High School	2006/May	Improving

Course Descriptions

Detailed sample plans of study for the five career pathways of the Governor's Career and Technical Academy in Arlington (Engineering and Technology, Audio and Video Technology and Film, Support Services, Information Support and Services, and Facility and Mobile Equipment Maintenance) are presented in Appendix H. The programs of study are based on the national pathway model provided by the Career Clusters Institute. Teacher leaders from each of the five pathways will use the criteria below for designing their programs.

A successful graduate of the Governor's Career and Technical Academy in Arlington will have completed:

- Requirements for a high school diploma (Technical or Advanced Technical when approved);
- At least nine college transferable credits;
- A Board of Education-approved Industry certification (one or more);
- Requirements for a Workplace Readiness Certificate; and
- An extended workplace experience such as cooperative education, internship, or mentorship.

Additional optional components of The Governor's Career and Technical Academy in Arlington diploma will include:

- Completion of service learning or civic engagement experience;
- Completion of Stretch Projects;
- Participation in co-curricular activities including student organizations (SkillsUSA™, DECA™) and their respective competitions; and
- An Associate degree.

Table 3: Partners in Work-Based Experience

Partner	Students in Work Experience		
	2005-2006	2006-2007	2007-2008
American Service Center	2	3	1
Nortel	20	20	5
Arlington Independent Media	2	4	5
Arlington Sports and Health			2
Arlington Educational TV	1		2
Audi of Alexandria	1	1	3

Table 3 lists key partners providing work-based experiences for students from the Arlington Career Center who have committed to continuing their work with students under the structure of the Governor's Career and Technical Academy in Arlington. The small sample provided is drawn from a list of more than 100 sites available.

Schedules

Northern Virginia Community College dual enrollment courses will follow the Arlington Public School semester, which differs from the standard Northern Virginia Community College semester schedule. Starting in 2008-2009, the Governor's Career and Technical Academy in

Arlington will be a part-day program and will work in conjunction with academic courses at four feeder high schools: Washington-Lee High School, Wakefield High School, Yorktown High School, and H.B. Woodlawn Secondary School. This will allow students a variety of academic coursework from which to choose. Currently, a number of students attend the Career Center full day. Within three years, beginning in the 2011-2012 academic year, a more comprehensive full-day program will be available to more students at the Governor's Career and Technical Academy in Arlington. CTE programs will continue to be made available to other Arlington Public Schools students on a part-day basis as space is available.

Fiscal Assurance

The operating funds and facilities available to support the Governor's Career and Technical Academy in Arlington are adequate to meet the needs of the program. The budget and budget narrative for the implementation year (included in Part V of this proposal, pages 29-34) clearly demonstrate that the salaries and benefits for administrators, teachers, faculty and career coach assigned from Northern Virginia Community College, ancillary recordkeeping personnel, and grants management personnel have been identified and assigned as a condition of their employment to support the Governor's Career and Technical Academy in Arlington. All appropriate rules and regulations of Northern Virginia Community College will be followed with respect to funds administration.

The professional development funds required to enhance delivery of STEM education will begin with the funds provided under the implementation grant and continue with Perkins funding. The facilities, offices, classrooms, labs, and other infrastructure in which the work of the Governor's Career and Technical Academy in Arlington will be conducted exist within the Arlington Career Center. The coordination of classroom and other teaching space required by the Governor's Career and Technical Academy in Arlington will be managed by the principal of the Arlington Career Center or his/her designee in close collaboration with the career coach assigned by Northern Virginia Community College to support the implementation of this joint academy.

Northern Virginia Community College's long-term commitment to the Governor's Career and Technical Academy in Arlington is based on the financial return generated by the dual enrollment of students. Each faculty member assigned to the Governor's Career and

Technical Academy in Arlington requires an approximate average annual commitment of \$85,000 for salary and benefits. Temporary staff appointments will be funded by Northern Virginia Community College and Arlington Public Schools. The partnership will develop a plan for establishing joint appointments in the long term.

The funding and in-kind support for partnership programs, job readiness preparation internships, co-ops, and apprenticeships will be met in part by business and industry partners. Requirements for the labs, studios, and other workshop facilities for the Governor's Career and Technical Academy in Arlington will be met with support from business partners, existing funds, and facilities available to the Arlington Career Center, by facilities and access agreements under dual enrollment, or by special arrangements between Northern Virginia Community College and Arlington Public Schools on behalf of the Governor's Career and Technical Academy in Arlington. At full implementation, the Governor's Career and Technical Academy in Arlington will fully integrate the Arlington Career Center and its fiscal, human, and physical resources.

Materials and Equipment

The Arlington Career Center will allocate equipment and facilities for the IT Pathway of the Governor's Career and Technical Academy in Arlington. All other labs and equipment are in existence. Arlington Public Schools supports instructional programs through operating funds, CTE funds, and grant funds such as the Carl D. Perkins Vocational and Technical Education Act funds. Nearby Northern Virginia Community College campuses will provide facilities and training aids as necessary for the five featured pathways of the Governor's Career and Technical Academy in Arlington.

Commitment to Continuous Improvement

Arlington Public Schools, School Board Policy 45-3, Accountability and Evaluation, provides a framework for the evaluation of all programs:

The Arlington Public Schools employs a comprehensive evaluation and accountability system to:

- spur continuous improvement of outcomes for students, staff, schools, departments, programs, and the school system as a whole;
- ensure the effective use of resources to achieve the system's goals;
- facilitate effective decision-making; and

- hold staff, students, schools, departments, programs, and the school system accountable for their contributions to the achievement of these aims.

The School Board will clearly state the system's goals and expectations. For each component of the school system being evaluated, the Superintendent shall provide:

- quantitative and qualitative evaluation criteria that assess progress toward the goals and expectations;
- analysis of results, both short-term and over time;
- established evaluation cycles and timelines; and
- identification of responsibility and determination of any consequences or changes.

Each evaluation will address issues appropriate to the program or service assessed, such as:

- fidelity of implementation;
- differential outcomes by population;
- satisfaction of users and clients;
- unanticipated outcomes; and
- cost-effective allocation of resources.

The Superintendent shall report to the Board at least annually on how well the objectives of the evaluation and accountability policy are achieved by students, staff, schools, programs, departments, and the school system as a whole.

The Arlington Career Center will continue to be evaluated through Arlington's Career, Technical, and Adult Education Office, until it is integrated fully into the Governor's Career and Technical Academy in Arlington. The Governor's Career and Technical Academy in Arlington will be evaluated by its planning and advisory committees to include policies, procedures, and outcomes, a review of program design, and instructional delivery consistent with that of Arlington Public Schools, as articulated above. The review also will solicit feedback from stakeholders including students, staff, and parents, and community, postsecondary, and industry partners. An independent evaluator will be contracted to review and buttress internal reports with professional examination of programmatic outcomes and fiscal management and will produce a comprehensive implementation status report on an annual basis. At full implementation, the external evaluator will provide expert assistance for the development of a strategic plan to ensure continuity in programming and in the trajectory of academic performance. This independent audit will incorporate data provided by the Academy.

IV. Administrative Procedures

Partnerships

Under the School and Community Relations Program, Arlington Public Schools maintains a Partners in Education program to provide guidelines, forms, and staffing for coordinating school partners. All partners of the Governor's Career and Technical Academy in Arlington must be registered through this program. Additional in-depth partnership agreements required by the Governor's Career and Technical Academy in Arlington will be developed by the partnership in close coordination with the Partners in Education program.

Students

Recruitment and Selection: Student recruitment, placement testing, selection, and admissions will occur in the broader context of the previously described Arlington Public Schools' Exploring and Mapping Academics and Careers, and through the existing Arlington Public Schools policy and procedures for admissions and placement. Northern Virginia Community College will administer placement tests and will ensure students meet requirements for each course in which they dual enroll. Equal opportunity to take a class should be available to any student who meets class prerequisites, regardless of whether or not the student is enrolled full-time in the Governor's Career and Technical Academy in Arlington. Should enrollment exceed space availability, standard Arlington Public Schools policies and procedures will be used to manage the high interest.

The success of this project will be measured by increased enrollment in the Governor's Career and Technical Academy in Arlington and by educational outcomes aligned with this proposal. The program's central objective is to raise standards and opportunities in career and technical education, and not to exclude students from participation in these life-changing opportunities for academic growth and professional advancement.

Transportation: Arlington Public Schools will provide transportation to students of the Governor's Career and Technical Academy in Arlington at no cost to families, consistent with established policies and procedures.

Student Code of Conduct: Students enrolled in courses in the Arlington Public Schools will be held accountable to the Arlington Public Schools Code of Conduct. Students dual enrolled will also be held to the code of conduct for Northern Virginia Community College.

Faculty and Administrative Staff

Recruitment and Selection: Once a position is identified for the Governor's Career and Technical Academy in Arlington, the Arlington Public Schools personnel office will be contacted, a job description will be developed and advertised, and interview and selection process will take place in accordance with Arlington Public Schools personnel policies and procedures. This process ensures that all staff of the Governor's Career and Technical Academy in Arlington will have the required licenses, certifications, industry and teaching experience. Employment of full- or part-time faculty for dual-enrolled courses will be overseen by Northern Virginia Community College hiring processes and requirements as dictated by Northern Virginia Community College policy.

Professional Development: Development and training of teachers, counselors, and administrators for the Governor's Career and Technical Academy in Arlington will take place through Virginia Tech, under the banner of Integrative STEM (I-STEM) Education. The training will start in June 2008 with a three-day institute led by one of the developers of Virginia Tech's I-STEM program, Dr. Mark Sanders. This summer institute will focus on preparation of teacher leadership in STEM integration in each of the five pathways. See Appendix I for a full explanation of the I-STEM pedagogy provided by Virginia Tech to the other members of the partnership.

Graduate Certificate and Degree Opportunities: Starting in fall of 2008, Virginia Tech's program in I-STEM will be available for all staff of the Governor's Career and Technical Academy in Arlington, as well as other interested faculty and staff from Arlington Public Schools and Northern Virginia Community College. A sample of courses is provided in Table 5, below; see Appendix I for a complete schedule of I-STEM professional development activities. Through Virginia Tech, participants in the Governor's Career and Technical Academy in Arlington may pursue an Integrative STEM Education Graduate Certificate (12 credit hours, pending university approval), a master's degree (30 credit hours), an education specialist degree

(30 credit hours), or one of two options for doctoral degrees, also described in the Schedule of STEM Professional Development Activities, Appendix I.

These graduate degree options were designed to develop 21st-century, K-16 I-STEM educators, leaders, scholars, and researchers prepared to investigate, teach, and disseminate new integrative approaches to STEM teaching and learning. The Virginia Tech program focuses on the investigation and application of new integrative approaches to STEM education. I-STEM education exemplifies the recommendations of the seminal STEM education reform publications of the past two decades, including *Science for All Americans*, *Benchmarks for Science Literacy*, *Principles and Standards for School Mathematics*, *National Science Education Standards*, *Standards for Technological Literacy*, and *Educating the Engineer of 2020*.

Table 5: I-STEM Courses Available to Faculty and Staff of the Governor's Career and Technical Academy in Arlington

Course Name	Description
STEM Education Foundations	An introduction to the educational, political, economic, and socio-cultural foundations of the STEM and STEM education disciplines.
STEM Education Pedagogy	Through careful analysis of readings and case studies, students in this course will explore the signature pedagogies unique to the fields of science, technology, engineering and mathematics (STEM) education.
STEM Education Trends and Issues	An introduction to contemporary K-16 STEM education trends and issues, including both integrative and within-discipline trends/issues.
STEM Education Research	Designed to survey the educational research practices of STEM disciplines, this course investigates the approaches used in studying the teaching/learning processes within the context of each discipline.
STEM Education Seminar	This course is designed as a general exploration into the issues surrounding the development of a STEM literate populace through education.
Field Studies in STEM Education	Applied study in one or more educational institutions.

Professional Development Seminars: As administrators deem necessary, additional professional seminars or professional development will be offered in complementary areas of:

- leadership and change;
- project-based inquiry;
- problem-based and design-driven inquiry;
- student and career counseling in STEM/CTE disciplines;
- promotion of diversity in STEM and CTE through integrated coursework;

- literacies in STEM and CTE fields; and
- data-driven decision-making.

Abbreviated versions of these topics will also be available in half-day seminars. Teacher professional development courses will be targeted for online availability and complementary courses and seminars can be conducted on-site in Arlington County or at the nearby Virginia Tech Northern Virginia Center in Falls Church.

Staff Evaluation: Staff will be evaluated according to the personnel policies of the Arlington Public Schools. Northern Virginia Community College faculty teaching dual-enrolled courses will be evaluated according to the policies of Northern Virginia Community College. Arlington Public Schools faculty teaching dual-enrolled courses will be evaluated according to both the Personnel policies of Arlington Public Schools and Virginia Community College System policies.

Community Involvement

The Arlington Career Center administrative staff will work with Arlington Public Schools staff on the parent, student, and community involvement aspects of the Governor's Career and Technical Academy in Arlington until full implementation. Once fully implemented, the staff of the Governor's Career and Technical Academy in Arlington will continue this work. Arlington Public Schools staff involved in this process will include the assistant superintendent of instruction; the assistant superintendent of student services; the director of career, technical and adult education (CTAE); and CTAE instructional supervisors. Outreach staff from the Arlington Career Center and, later, the Governor's Career and Technical Academy in Arlington, will include its principal and counseling department staff members.

Arlington Public Schools has laid the groundwork for the Governor's Career and Technical Academy in Arlington through several staff and community planning committees, including:

- Educational Design Team: group of 30 educators developed guiding principles around STEM education;
- STEM Task Group: citizen group that reviewed the work of the Educational Design Team and provided findings to the School Board affirming that work;

- Career/Interest Pathways Program Development Committee: examined the Arlington Public Schools program of studies from a pathways perspective; affirmed the importance of six-year academic plans for all students, covering middle and high school to ensure inclusion of career assessments, academic, and career goals; and
- STEM Data Collection Committee: working with Arlington Public Schools data warehouse and data collection procedures to make sure that data needs of the Governor's Career and Technical Academy in Arlington conform to Arlington Public Schools procedures and can be accommodated with the larger data collection system.

In addition, the Northern Virginia Tech Prep Steering Committee, representing the Northern Virginia Tech Prep Consortium, includes the CTE directors for all regional school districts, as well as Northern Virginia Community College administrators. Tech Prep supports and provides guidance to career coaches and assists with the development of regional pathways. Northern Virginia Community College has assembled a career pathways team with close ties to the community and to industry. This team will be made available for consultation and pathway design to the Governor's Career and Technical Academy in Arlington. The career pathways team assisted in designing the pathway maps attached in Appendix H.

V. Fiscal Information

Insurance

Northern Virginia Community College is authorized for insurance under the Commonwealth of Virginia Risk Management Plan which is administered by the Virginia Division of Risk Management. General liability insurance coverage for college academic activities includes tort liability, medical malpractice, and automobile liability when applicable. The limits on this coverage are established by the Virginia Department of Risk Management and include \$2,000,000 for tort claims against persons, \$100,000 for tort claims against the Commonwealth, \$1,925,000 for medical incident per occurrence.

Arlington Public Schools are insured by the Virginia Association of Counties Risk Management Program for property, liability, and auto insurance. The liability insurance is comprehensive coverage of \$5,000,000 per occurrence with no annual aggregate limit. Arlington Public Schools does not provide individual health insurance to students but offers a voluntary student accident program.

Please see Appendix J for certificates of coverage for Northern Virginia Community College and Arlington Public Schools.

Budget for Implementation Grant

A. Direct Costs		TOTAL			
Grant Funds (May not exceed \$100,000 total)	Grant Funds	Perkins Funds	Other Funds	In-Kind	
1. Personnel---1000	13,650			240,000	Two Northern Virginia Community College Faculty Members (Mathematics and Science) One half of a Career Coach, and .65 of an assistant to the partnership.
2. Employee Benefits---2000	4,350			76,800	Calculated on 32 percent of salary
3. Purchased/Contractual Services---3 000					
4. Internal Services---4000					
5. Staff Development---5000	42,000	100,000			
6. Summer Component Activities---5000					
7. Travel---5000	18,000		5,000		
8. Contractual Services---5000	18,500				
9. Materials and Supplies---6000 (stock I-STEM resource/research library with digital as well as hard copies.)	3,500				
10. Equipment---8000					
11. Facilities---8000					
B. Indirect Costs				196,265	
Total	100,000	100,000	5,000	513,065	

Budget Narrative

The implementation grant of \$100,000 will provide critical seed funding for professional development, curriculum development, and student enrollment. These are essential elements in building the Governor's Career and Technical Academy in Arlington into a fully-implemented STEM-focused program that can provide associate degrees in select fields.

Salary \$13,650 plus Benefits \$4,350

\$18,000

The partnership for the Governor's Career and Technical Academy in Arlington will require administrative support that will allow coherent reporting, document tracking, and coordination of planning and advisory committee meetings. The salary and benefits for this individual will be supported by additional funds from Northern Virginia Community College.

Staff Development

\$42,000

The early training of staff in collaboration with the Education Department of Virginia Tech will begin in summer 2008 with an introductory immersion of the first cohort of faculty in Integrative STEM (I-STEM) education. This short course will help orient faculty to the five career pathways and also will begin the integration of Northern Virginia Community College faculty who will be assigned to the Governor's Career and Technical Academy in Arlington beginning in September 2008. Twenty-five faculty and administrators will receive the introductory immersion training at a cost of approximately \$750 per participant plus books and other training materials. Development and training of teachers, counselors, and administrators for the Governor's Career and Technical Academy in Arlington will take place through Virginia Tech, under the banner of I-STEM education. The training will start in June 2008 with a three-day institute led by one of the developers of Virginia Tech's I-STEM program, Dr. Mark Sanders. This summer institute will focus on preparation of lead teachers in STEM integration in each of the five pathways.

\$750 X 22 participants \$16,500

Starting in fall 2008, Virginia Tech's program in I-STEM will be available for all staff of the Governor's Career and Technical Academy in Arlington, as well as other interested faculty and staff from Arlington Public Schools. Through the agreement between the Governor's Career and Technical Academy in Arlington and Virginia Tech, participants may pursue an array of

certificates or degrees. As a professional incentive, the partnership proposes to waive tuition for pathway faculty from the Governor’s Career and Technical Academy in Arlington. Any faculty member seeking onward degrees also will be eligible for additional tuition assistance as per employee benefits and regulations of Northern Virginia Community College or Arlington Public Schools.

One credit course from Virginia Tech in I-STEM

\$1,500 X 17 participants \$25,500

Travel for professional development of faculty, administrators, and students.

\$1,000 X 18 participants

\$18,000

The professional development of staff and student exposure to advances in STEM education that emerge across the country require that staff of the Governor’s Career and Technical Academy in Arlington attend and participate fully in educational conferences, seminars, and meetings. The partnership proposes to dedicate professional development funds to the travel of select members of the faculty, administration, and students from the Governor’s Career and Technical Academy in Arlington over the course of the first year. Although these funds will not be sufficient to cover costs for a comprehensive program to expose the community nationally, additional funds from Perkins and other sources will be made available according to the implementation budget.

Contractual Services

\$18,500

Communications budget for recruitment brochures for students, publicity brochures for potential partners and the general public, and a variety of promotional materials appropriate for general distribution.

Communications budget \$6,000

Arlington’s Career, Technical, and Adult Education Office will continue to evaluate the Arlington Career Center until it is integrated into the Governor’s Career and Technical Academy in Arlington. The Governor’s Career and Technical Academy in Arlington will be evaluated by its planning and advisory committees. Evaluation will include policies, procedures, and outcomes; review of program design; and instructional delivery. The review also will solicit feedback from stakeholders including students, staff, and parents, and from community,

staffing, professional development, and other approved Perkins funds uses through Arlington Public Schools proposals to the Commonwealth for the coming fiscal year. The exact divisions of these costs will be determined by the professional development needs of the faculty, by the allowances given under the Perkins grant, and by the staffing requirements of the Governor's Career and Technical Academy in Arlington.

Travel **\$5,000**

Additional travel not lodged against the travel line item is anticipated by planning and advisory committee members during the grant period.

Negotiated Indirect Overhead Cost Rate **\$196,265**

Finally, the Implementation Grant allowed only 8 percent for indirect costs. However, Northern Virginia Community College is allowed a Negotiated Indirect Overhead Cost Rate with the Office of Management and Budget of the United States of 42.5 percent. These are costs associated with grants and grants-related activity and will total over \$150,000. This Negotiated Indirect Overhead Cost Rate also represents an in-kind contribution to the planning effort for the Governor's Career and Technical Academy in Arlington.

Total in-kind support for the implementation grant is expected to be: \$658,065

Appendix A
Planning and Advisory Committees

Planning and Advisory Committees

Planning Committee

The Planning Committee for the Governor's Career and Technical Academy in Arlington has developed over the fall of 2007 and into the spring of 2008 as a working partnership that will drive the processes needed to open the doors of this Governor's Career and Technical Academy in September 2008. The initiative promises to integrate science, technology, engineering, and mathematics education with career and technical education in the innovative framework of an optional joint five-year high school, which will strengthen career pathways in northern Virginia.

The Career and Technical Academy in Arlington planning committee was drawn from the business community, Northern Virginia Community College, Arlington Public Schools, and Virginia Tech, as well as government and nongovernment agencies and organizations intimately involved with the promotion of STEM education regionally and nationally. The members of the committee were designated by the executives of the participating institutions and reflect the full commitment from these institutions in the design and development of this unique educational model.

The planning committee has met frequently and will continue to do so on a regular basis to fulfill the terms of the grant and forward a proposal to the Board of Education under the schedule outlined in the *January 2008 VDOE Guidance Manual*.

Planning Committee

Name	Affiliation	Title
Milan Hayward* Co-Chair	Northern Virginia Community College	Special Assistant, Career and Technical Education
Michael Morton* Co-Chair	Arlington Public Schools	Director, Career, Technical, and Adult Education
Gerald Caputo* Deputy Co-Chair	Arlington Public Schools	Principal, Arlington Career Center
Jim Egenrieder* Deputy Co-Chair	Virginia Tech	Science Education Advisor, School of Education
Robert Henderson* Compliance/Comptroller	Northern Virginia Community College	Office of Grants and Special Projects
Ashley Albert* Reporting Secretary	Arlington Public Schools	Administrative Specialist, Career, Technical, and Adult Education
Kris Martini*	Arlington Public Schools	Supervisor, Technology Education/Trade & Industrial Education
Phyllis Gandy*	Arlington Public Schools	Supervisor, Business and Information Technology, Computer Science and Marketing
Charlotte Calobrisi*	Northern Virginia Community College	Special Assistant for Dual Enrollment
David Welsh*	Arlington Public Schools	Career and Technical Education Specialist, Arlington Career Center
Andrew Cornell	Northern Virginia Community College	Dean of Allied Health
Robert Woodke	Northern Virginia Community College	Associate Professor of Engineering
Jonathan Gueverra	Northern Virginia Community College	Provost, Alexandria Campus
Sharon N. Robertson	Northern Virginia Community College	Associate Vice President for Academic Services
John Min	Northern Virginia Community College	Dean of Business
Dr. Tony Stanzo	Northern Virginia Community College	Dean of Arts and Public Services
Mark Johnston	Arlington Public Schools	Assistant Superintendent, Department of Instruction
Howard Feldstein	Arlington Employment Center	Director
David Bain	Viral Media Productions, LLC	Chief Innovation Officer
Michael Connet	Nortel	Chief Academic Officer
Ron Bittinger	Passport Nissan, Passport Nissan	Service Director
Michael Haney	National Science Foundation	Program Director
Stanley Rodia	American Service Center	Director, Parts & Service

* Executive Committee

Advisory Committee

The Governor's Career and Technical Academy in Arlington Advisory Committee is drawn from the group of supporters and potential partners informed in national and Commonwealth policy trends and initiatives in STEM education and in the evolution of secondary and higher education in the Commonwealth as well as representatives from the communities of representing business and local government. The advisory committee will meet quarterly to review the progress of the initiative and provide commentary on areas of functional and specialized interest.

Advisory Committee

Name	Affiliation	Title
Milan Hayward* Co-Chair	Northern Virginia Community College	Special Assistant, Career and Technical Education
Michael Morton* Co-Chair	Arlington Public Schools	Director, Career, Technical, and Adult Education
Jim Egenrieder* Deputy Co-Chair	Virginia Tech	Science Education Advisor, School of Education
Gerald Caputo* Deputy Co-Chair	Arlington Public Schools	Principal, Arlington Career Center
Robert Henderson* Compliance/Comptroller	Northern Virginia Community College	Office of Grants and Special Projects
Vance Ablott	Triangle Coalition	President
John Andelin	Arlington Public Schools Career, Technical, and Adult Education Advisory Committee	Chair
Betsy Brand	American Youth Policy Forum	Director
Jonathan Gueverra	Northern Virginia Community College	Provost, Alexandria Campus
Gerhard Salinger	National Science Foundation	Advanced Technology Education Program Director

* Executive Committee



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 5/1/08

PARTNER NAME:

Gerald Caputo

INSTITUTION/ORGANIZATION

Arlington Public Schools

ADDRESS/CONTACT INFORMATION

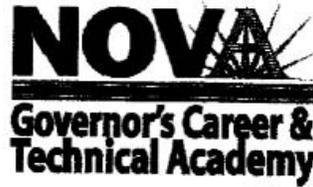
816 S. Waster Reed Dr.
Arlington, VA 22204

APPROVING SIGNATURE

Gerald Caputo EdD

TITLE: Principal

DATE: 4/30/08



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

James A. Egenrieder

INSTITUTION/ORGANIZATION

Virginia Tech Science Education

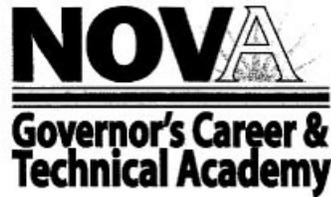
ADDRESS/CONTACT/INFORMATION

7054 Haycock Rd.
Falls Church, VA 22043

APPROVING SIGNATURE:

[Signature]
TITLE: Clinical Faculty

DATE: 05-05-08



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 5/1/08

PARTNER NAME:

Robert Henderson

INSTITUTION/ORGANIZATION

Northern Virginia Community College

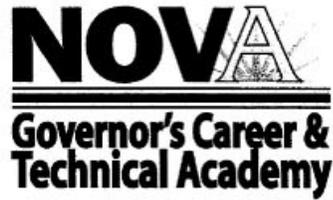
ADDRESS/CONTACT/INFORMATION

Grants Dept.
7630 Little River Turnpike
Annandale, Virginia 22023-3776
Suite 812

APPROVING SIGNATURE:

Robert Henderson
TITLE: College Grants Writer

DATE: April 30, 2008



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward

Milan Hayward

Michael Morton

Michael Morton

DATE: 5/1/08

PARTNER NAME:

Ashley Albert

INSTITUTION/ORGANIZATION

Career, Technical & Adult Education

ADDRESS/CONTACT/INFORMATION

2801 Clarendon Blvd.

Suite 306

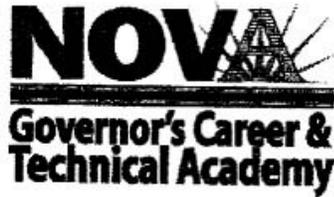
Arlington, VA 22201

APPROVING SIGNATURE:

[Signature]

TITLE: Admin. Specialist

DATE: 4/30/08



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 5/1/08

PARTNER NAME:

Christopher Martin

INSTITUTION/ORGANIZATION

Technology Education

ADDRESS/CONTACT/INFORMATION

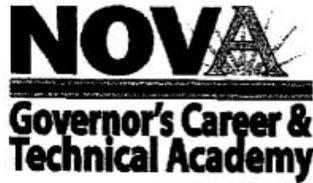
APPROVING SIGNATURE:

Christopher Martin

TITLE: Supervisor

DATE: 4/30/08

**Please return via facsimile to 703-228-7205.
Attention: Ashley Albert**



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 5/1/08

PARTNER NAME:

Shyllis Gandy

INSTITUTION/ORGANIZATION

Business & Information Technology

ADDRESS/CONTACT/INFORMATION

APPROVING SIGNATURE:

Shyllis Gandy
TITLE: *Curriculum Supervisor*

DATE: May 1, 2008

**Please return via facsimile to 703-228-7205.
Attention: Ashley Albert**



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Charlotte M. Calobrisi

INSTITUTION/ORGANIZATION

Northern Virginia Community College

ADDRESS/CONTACT/INFORMATION

8333 Little River Turnpike

Annandale, VA 22003

APPROVING SIGNATURE:

Charlotte M Calobrisi

TITLE: Special Assistant for Dual Enrollment

DATE: April 28, 2008

**Please return via facsimile to 703-228-7205.
Attention: Ashley Albert**



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 5/1/08

PARTNER NAME:

David Welsh

INSTITUTION/ORGANIZATION

Arlington Public Schools

ADDRESS-CONTACT INFORMATION

816 S. Walter Reed Dr.
Arlington, VA 22204

APPROVING SIGNATURE:

[Signature]

TITLE: CTE Specialist

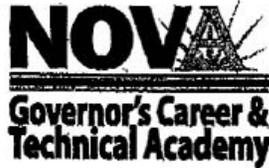
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Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Andrew B. Cornell, Sr

INSTITUTION/ORGANIZATION

Medical Education Campus, NVCC

ADDRESS/CONTACT/INFORMATION

6699 Springfield Center Dr.
Springfield, VA 22150

APPROVING SIGNATURE:

Brian T. Foley

TITLE: Provost

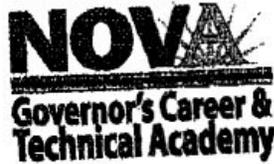
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Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Robert Woodke

INSTITUTION/ORGANIZATION

NOVA

ADDRESS/CONTACT/INFORMATION

8333 Little River Turnpike

Annandale, VA 22003

rwoodke@nvcc.edu

APPROVING SIGNATURE:

Robert Woodke

TITLE: Assistant Dean Engineering

DATE: 4-29-2008

Apr. 29 2008 01:58PM P1

FAX NO. :

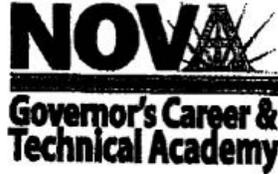
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PAGE 03/04
002/002



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Jonathan Gueverra

INSTITUTION/ORGANIZATION

Northern Virginia Community College

ADDRESS/CONTACT/INFORMATION

3001 North Beauregard Street
Alexandria, VA 22311

APPROVING SIGNATURE:

[Signature]

TITLE: Provost

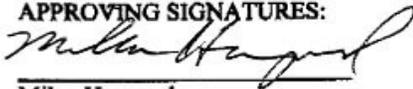
DATE: 04/29/2008



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:


 Milan Hayward


 Michael Morton

DATE: 5/1/08

PARTNER NAME:

Sharon N. Robertson

INSTITUTION/ORGANIZATION

Northern Virginia Community College

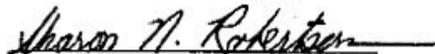
ADDRESS/CONTACT/INFORMATION

NOVA

4001 Wakefield Chapel Rd

Annandale, VA 22003

APPROVING SIGNATURE:



TITLE: Assoc. VP for Academic Services

DATE: May 1, 2008

Received Fax : Apr 29 2008 12:15PM Fax Station : APS CIAE p. 1

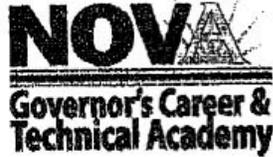
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PAGE 01/04

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P. 2



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Talbot Hill

INSTITUTION/ORGANIZATION

NYCC

ADDRESS/CONTACT/INFORMATION

3001 N. BRANFORD STREET
ATLANTA, VA 22311

APPROVING SIGNATURE:

Talbot Hill

TITLE: DEAN OF BUSINESS

DATE: 04/29/08

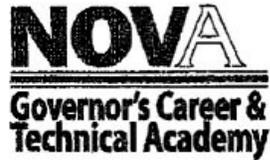
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PAGE 02/04



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Dr. Tony Stanzo

INSTITUTION/ORGANIZATION

NUCC

ADDRESS/CONTACT/INFORMATION

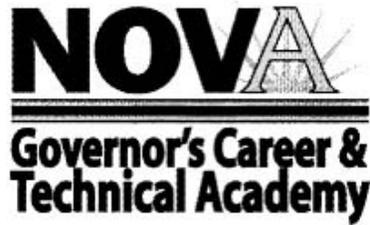
Arts & Public Services, NUCC
3001 N. Beauregard
Alexandria, VA 22311

APPROVING SIGNATURE:

A. Stanzo

TITLE: Dean, Arts & Public Svc

DATE: 4/29/08



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:


Milan Hayward


Michael Morton

DATE: 4/30/08

PARTNER NAME:

Mark Johnston

INSTITUTION/ORGANIZATION

Arlington Public Schools

ADDRESS/CONTACT/INFORMATION

1439 N. Quincy St.
Arlington, VA 22207

APPROVING SIGNATURE:

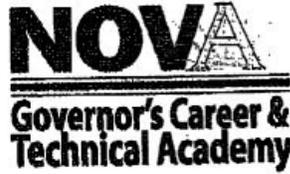


TITLE: Assistant Superintendent, Instruction

DATE: May 1, 2008

Received Fax : Apr 29 2008 8:44AM Fax Station : APS CTAE p. 2

04/29/2008 08:48 7032281044 ARLINGTON EMPLOYMENT PAGE 02/02



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Howard Feldstein

INSTITUTION/ORGANIZATION

Arlington Employment Center

ADDRESS/CONTACT/INFORMATION

3033 Wilson Blvd

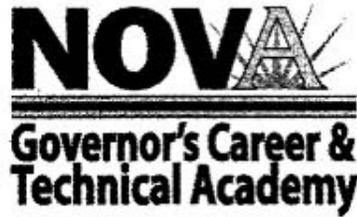
Arlington, VA 22201

[Signature]

APPROVING SIGNATURE:

TITLE: DIRECTOR

DATE: April 28, 2008



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

David Bain

INSTITUTION/ORGANIZATION

VMP, LLC

ADDRESS/CONTACT/INFORMATION

1807 N. Danville St
Arlington, VA
22201

APPROVING SIGNATURE:

David Bain

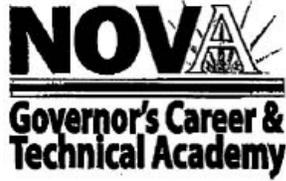
TITLE: Chairman

DATE: 4/28/08

Received Fax : Apr 30 2008 7:38AM Fax Station : APS CIAE p. 1

Apr. 30. 2008 8:48AM

No. 0320 P. 1



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:
Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:
Michael Connet
INSTITUTION/ORGANIZATION
Nortel Networks / Nortel LearnIT

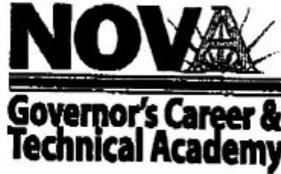
ADDRESS/CONTACT/INFORMATION
101 Constitution Avenue, NW
Suite 325 East
Washington, DC 20001

APPROVING SIGNATURE:
[Signature]

TITLE: Chief Academic Officer

DATE: April 28, 2008

Received Fax : Apr 29 2008 11:03AM Fax Station : APS CTAF
04/29/2008 11:06 FAX 7038239640 PASSPORT_NISSAN_SVC 001/001



Planning/Advisory Committee Signature Sheets
Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:
Milan Hayward
Milan Hayward
Michael Morton
Michael Morton
DATE: 4/30/08

PARTNER NAME:
RON BITTINGER
INSTITUTION/ORGANIZATION
PASSPORT NISSAN / INFINITI
ADDRESS/CONTACT/INFORMATION
150 S Pickett Street
Alex VA. 22304

APPROVING SIGNATURE:
[Signature]
TITLE: Service Director
DATE: 4-28-2008

Received Fax : Apr 30 2008 8:43AM Fax Station : APS CTAF p. 2

04/30/2008 08:59 FAX

002



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Michael Hayward
Michael Hayward

Michael R. Haney
PARTNER NAME

Michael Morton
Michael Morton

National Science Foundation
INSTITUTION/ORGANIZATION

DATE: 4/30/08

ADDRESS/CONTACT INFORMATION:

4201 Wilson Blvd #881
Arlington, VA 22230

APPROVING SIGNATURE:

Michael R. Haney

TITLE: Project Director

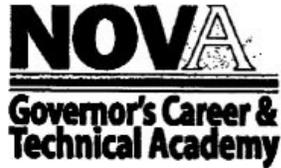
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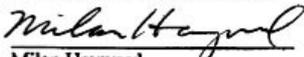
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P.02



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

 Milan Hayward


 Michael Morton

DATE: 4/30/08

PARTNER NAME:
Stanley Rodia

INSTITUTION/ORGANIZATION
American Service Center, LLC

ADDRESS/CONTACT/INFORMATION
585 North Glebe Road
Arlington, Virginia 22203
703.525.2100

APPROVING SIGNATURE:

 TITLE: Parts & Service Director

DATE: 4/28/2008

**Please return via facsimile to 703-228-7205.
 Attention: Ashley Albert**

TOTAL P.02



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

Vance Ablott

INSTITUTION/ORGANIZATION

Triangle Coalition for Science and Technology Education

ADDRESS/CONTACT/INFORMATION

1840 Wilson Blvd.

Suite 201

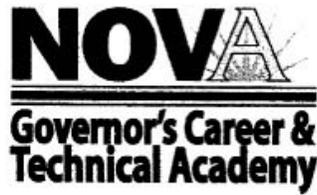
Arlington, VA 22201

APPROVING SIGNATURE:

Vance Ablott

TITLE: Executive Director

DATE: April 28, 2008



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

JOHN ANDERSON

INSTITUTION/ORGANIZATION

CAREER, TECHNICAL & ADULT
EDUCATION, APS

ADDRESS/CONTACT/INFORMATION

129 N DUNCAN ST
ARLINGTON, VA 22201

APPROVING SIGNATURE:

Charles

TITLE: CHAIR, CTA3 ADVISORY COMMITTEE

DATE: 28 April 08

Received Fax : Apr 28 2008 1:44PM Fax Station : APS CTAE p. 1

Apr 28 08 03:10p

American Youth Policy For 2027759733

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Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Michael Morton
Michael Morton

DATE: 4/30/08

PARTNER NAME:

BETSY BRAND

INSTITUTION/ORGANIZATION

American Youth Policy Forum

ADDRESS/CONTACT/INFORMATION

1836 Jefferson Place NW
Washington, DC 20036

APPROVING SIGNATURE:

Betsy Brand

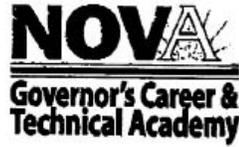
TITLE: Director

DATE: April 26, 2008

Received Fax : Apr 30 2008 8:43AM Fax Station : APS CIAE p. 3

04/30/2008 08:59 FAX

003



Planning/Advisory Committee Signature Sheets

Governor's Career and Technical Academy in Arlington

APPROVING SIGNATURES:

Milan Hayward
Milan Hayward

Gerhard H. Salinger
PARTNER NAME

Michael Morton
Michael Morton

National Science Foundation
INSTITUTION/ORGANIZATION

DATE: 4/30/08

ADDRESS/CONTACT INFORMATION:

4201 Wilson Blvd Rm 883
Arlington VA 22203

APPROVING SIGNATURE:

Gerhard H. Salinger

TITLE: Program Officer

DATE: 4/30/08

Appendix B
Memorandum of Agreement

Memorandum of Agreement

Signatories to the Memorandum of Agreement

Dr. Robert G. Templin, Jr.	Northern Virginia Community College	President
Dr. Robert G. Smith	Arlington Public Schools	Superintendent
Mark Johnston	Arlington Public Schools	Assistant Superintendent, Department of Instruction
Michael Morton	Arlington Public Schools	Director, Career, Technical, and Adult Education
Gerald Caputo	Arlington Public Schools	Principal, Arlington Career Center
David Bain	Viral Media Productions, LLC	Chief Innovation Officer
Ron Bittinger	Passport Nissan	Service Director
Jonathan Gueverra	Northern Virginia Community College	Provost, Alexandria Campus
Milan Hayward	Northern Virginia Community College	Special Assistant, Career and Technical Education
Betsy Brand	American Youth Policy Forum	Director
Howard Feldstein	Arlington Employment Center	Director
Stanley Rodia	American Service Center	Director, Parts & Service
Dr. Mark McNamee	Virginia Tech	Provost
Michael Connet	Nortel	Chief Academic Officer

**MEMORANDUM OF AGREEMENT
BETWEEN**



AND

**Participating Partners in the
Governor's Career and Technical Academy in
Arlington**

PARTNERS to this Agreement support the objectives of the Governor's Career and Technical Academy in Arlington to broaden the scope of K-16 Science, Technology, Engineering, and Mathematics (STEM) educational experiences in Northern Virginia through Career and Technical Education. The Governor's Career and Technical Academy in Arlington will be jointly operated by Northern Virginia Community College (NOVA) and Arlington Public Schools (APS).

PROJECT VISION

The Governor's Career and Technical Academy in Arlington will foster a vibrant economy for the Northern Virginia region and the Commonwealth by educating and training innovators and technologists necessary for supporting the global competitiveness of communities and businesses in the region. Initial project focus will be on the development of CTE program pathways within Engineering and Technology, Audio and Video Technology and Film, (Health Science) Support Services, Information Support and Services, and Facility and Mobile Equipment Maintenance pathways. The project's middle college will provide the opportunity for qualified students to earn a high school diploma and college associate degree in five years. Based on regional work force needs, expansion is possible into career areas such as geospatial technologies, modeling and simulation, biotechnology, and other fields of Innovation, Technology and Engineering.

MOA TIMEFRAME

The MEMORANDUM OF AGREEMENT period of performance shall be February 28, 2008 through June 30, 2009, extending forward annually unless modified by mutual agreements, or terminated by a partner. Any partner may withdraw on 90 days written notice to the other partners.

PARTNERS AGREEMENT

Co-lead partner Northern Virginia Community College agrees to:

- Serve as the project's Lead Agency and Fiscal Agent to the Virginia Department of Education, and provide documentation and information as requested;
- Establish and facilitate a project Advisory Committee with partners and sponsors and a Planning Committee for the implementation of the grant, to which all grant budget matters will be reported;
- Assist (to be determined) co-lead partner with the operational costs of the Governor's Career and Technical Academy in Arlington;

- Provide co-leadership with Arlington Public Schools for developing and communicating project vision and implementation;
- Coordinate and monitor the implementation of Program of Studies and staff development initiatives, and assure compliance with all Commonwealth educational standards and Arlington Public Schools policies;
- Provide program evaluation and oversee dual-enrolled courses as required by the Virginia Community College System;
- Coordinate closely with project staff in the development and distribution of recruitment and marketing materials;
- Support the project's on-site Career Coach, Student Services, Teaching Faculty, and on-site Administrative personnel through available resources;
- Coordinate all project initiatives with the divisional Superintendent(s) and Career and Technical Director(s); and
- Work with co-lead partner to establish a business model that will promote the long-term sustainability of the Governor's Career and Technical Academy in Arlington.

Co-lead partner Arlington Public Schools agrees to:

- Assure that resources are provided to implement approved Governor's Career and Technical Academy in Arlington programs subject to the appropriation of funds by the School Board;
- Designate a liaison(s) and co-chair of project Planning and Advisory Committees;
- Provide the Principal of the Arlington Career Center to serve as school-based leadership for the communication and implementation of programs;
- Recruit, select, and enroll students, including implementation of strategies to recruit non-traditional, ESL, and minority representation;
- Provide counseling and other services that promote STEM education, career pathways, educational advancement K-16, and employment opportunities for students;
- Provide support and resources for APS approved programs and activities and assure that, where appropriate, School Board approved courses meet accreditation and DOE standards and course faculty meet DOE licensure requirements;
- Assure that all approved dual enrollment courses are aligned with content standards and faculty credentialing requirements and meet Virginia Department of Education requirements;
- Assure adequate staff development, support, training and credentialing for faculty as required, in accordance with policy and budget;
- Provide adequate IT hardware, software and technical support for instruction as approved;
- Provide a contact for collection and reporting of project data required for assessment and evaluation and for coordination with reporting requirements to fulfill the program vision;
- Follow business practices as established in existing dual enrollment agreements; and
- Work with co-lead partner to establish a business model that will promote the long-term sustainability of the Governor's Career and Technical Academy in Arlington.

Professional development partner Virginia Polytechnic Institute and State University (Virginia Tech) agrees to:

- Designate a key contact person to serve as liaison and active participant in Planning and Advisory Committees;
- Participate in planning, organization, and delivery of professional development training seminars for NOVA faculty and Arlington Public School teachers, counselors and administrators, when feasible;
- Provide academic advising for NOVA faculty and Arlington Public School teachers, counselors and administrators applying to the graduate school, and enrolling and scheduling Virginia Tech's Integrative STEM graduate courses;
- Participate in planning and strategy sessions to advance the teaching capacity and institutional knowledge of project faculty; and
- Provide a contact person for the submission of demographic and instructional data for project assessment and evaluation according to organizational policies.

Business Sponsors (current and future partners) agree to:

- Designate a key contact person(s) to serve as liaison and active participant in the Advisory Committee;
- Provide personnel resources, volunteers or other experts, and financial resources, as agreed upon, to assist in the planning, delivery, or offering of Governor's Career and Technical Academy in Arlington programs;
- Provide technical expertise to assure that the project curriculum and instruction reflects industry standards and prepares students for the intended work force;
- Share information with other business leaders to recruit additional partners and sponsors;
- Provide opportunities, as agreed upon, for Governor's Career and Technical Academy in Arlington students to receive real world experiences through internships, mentorships, and/or project based learning;
- Offer Governor's Career and Technical Academy in Arlington graduates access to employment opportunities within your organization as agreed upon; and
- Provide or assist in procuring instructional and professional development resources.

Non-Profit Organizations (current and future partners) agree to:

- Designate one or more key contact person(s) to serve as liaison and active participant in the Advisory Committee;
- Assist in the planning, delivery, or offering of the Governor's Career and Technical Academy in Arlington programs, providing financial resources as agreed upon;
- Share information with other organizations to recruit additional partners and sponsors;
- Assist in developing and implementing strategies for the recruitment and enrollment of non-traditional and minority students, as agreed upon;
- Provide or assist in procuring instructional and professional development resources and provide organizational leadership for the communication and implementation of agreed upon Programs; and
- Provide personnel resources, as agreed upon.

By signing this agreement, these institutions agree to be active partners and agree to abide by this agreement. Other partners pledge their support to The Governor's Career and Technical Academy in Arlington through their participation on the planning and advisory committees.

Robert G. Templin, Jr. / A.P.S.
Dr. Robert G. Templin, Jr.
Northern Virginia Community College
June 5, 2008
DATE

Robert G. Smith
Dr. Robert G. Smith
Arlington Public Schools
June 6, 2008
DATE

SIGNATURE: Mark Johnston
NAME: Mark Johnston
INSTITUTION: Arlington Public Schools
DATE: June 6, 2008

SIGNATURE: Jonathan Guevara
NAME: Jonathan Guevara
INSTITUTION: Northern Virginia Community College
DATE: June 6, 2008

SIGNATURE: Michael Morton
NAME: Michael Morton
INSTITUTION: Arlington Public Schools
DATE: June 6, 2008

SIGNATURE: Milan Hayward
NAME: Milan Hayward
INSTITUTION: Northern Virginia Community College
DATE: June 6, 2008

SIGNATURE: Jerry Caputo
NAME: Jerry Caputo
INSTITUTION: Arlington Public Schools
DATE: June 6, 2008

SIGNATURE: Betsy Brand
NAME: Betsy Brand
INSTITUTION: American Youth Policy Forum
DATE: June 6, 2008

SIGNATURE: David Bain
NAME: David Bain
INSTITUTION: Viral Media Productions
DATE: June 6, 2008

SIGNATURE: Howard Feldstein
NAME: Howard Feldstein
INSTITUTION: Arlington Employment Center
DATE: June 6, 2008

SIGNATURE: Ron Bittinger
NAME: Ron Bittinger
INSTITUTION: Passport Nissan
DATE: June 6, 2008

SIGNATURE: Stanley Rodia
NAME: Stanley Rodia
INSTITUTION: American Service Center
DATE: June 6, 2008

SIGNATURE: Mark McNamee
NAME: Mark McNamee
INSTITUTION: Virginia Tech
DATE: June 10, 2008

SIGNATURE: Michael Connett
NAME: Michael Connett
INSTITUTION: Nortel LearnIT
DATE: June 6, 2008

Appendix C
Industry Employment and Projections

Industry Employment and Projections

Industry Employment and Projections Data in Virginia
Statewide from Base Year 2004 to Projected Year 2014

Industry Code	Industry Title	Estimated Employment	Projected Employment	Total Employment Change	Annual Avg. Percent Change	Total Percent Change
000000	Total Employment, All Jobs	3,871,342	4,531,580	660,238	1.59	17.1
101000	Goods-Producing	602,927	620,532	17,605	0.29	2.9
101100	Natural Resources and Mining	73,204	70,123	-3,081	-0.43	-4.2
101200	Construction	231,075	262,265	31,190	1.27	13.5
101300	Manufacturing	298,648	288,144	-10,504	-0.36	-3.5
102000	Services-Providing	2,945,051	3,564,299	619,248	1.93	21.0
102100	Trade, Transportation, and Utilities	647,712	720,920	73,208	1.08	11.3
102200	Information	100,277	115,867	15,590	1.46	15.5
102300	Financial Activities	187,063	220,961	33,898	1.68	18.1
102400	Professional and Business Services	577,598	782,965	205,367	3.09	35.6
102500	Education and Health Services	638,522	801,165	162,643	2.30	25.5
102600	Leisure and Hospitality	320,045	388,926	68,881	1.97	21.5
102700	Other Services (Except Government)	123,432	142,000	18,568	1.41	15.0
102800	Government	350,402	391,495	41,093	1.12	11.7

Source: Projections Team and Bureau of Labor Statistics

Appendix D
Assurances

Assurances

The signatures on this page certify the following to the Virginia Department of Education:

1. The planning committee has reviewed the provisions of *Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies* outlined in the Guidance Manual, and understands that the following implementation proposal addresses these criteria and others approved by the Virginia Board of Education.
2. The planning committee agrees to follow the guidelines set forth in the *Administrative Procedures for the Establishment of Governor's Career and Technical Academies*.
3. The Governor's Career and Technical Academy will be a jointly operated program, and an ongoing governing board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs.
4. Northern Virginia Community College will serve as the grant fiscal agent.

Certification by Authorized Institutional Officials:

The applicant certifies that, to the best of his knowledge, the information in this application is correct, that the filing of this application is duly authorized by the partners participating in this process to establish a Governor's Career and Technical Academy, and that the applicant will comply with the above statement of assurances.

Dr. Robert G. Templin, Jr., President, Northern Virginia Community C



February 29, 2008

Dr. Robert G. Smith, Superintendent, Arlington Public Schools



February 28, 2008

Northern Virginia Community College (NOVA) will serve as the fiscal agent for this grant and program, and, as a public entity, is capable of filling this function for the duration of the program.

Mr. David Courter, Acting Vice President for Finance and Administration,
Northern Virginia Community College



April 29, 2008

Appendix E
Gap Analysis

Gap Analysis

**Federal Career Cluster: Transportation, Distribution & Logistics
Pathway: Facility and Mobile Equipment Maintenance**

High School Certifications	ASE Certifications	Brakes, Engines, Electrical, Steering and Suspension
	Shop Safety and Pollution Prevention Certification	
Industry Credentials (Preparation provided through Northern Virginia Community College coursework)	ASE Certifications (9)	Engine Repair (A1), Automotive Transmission/Transaxle (A2), Manual Drive train and Axles (A3), Suspension and Steering (A4), Brakes (A5), Electrical Systems (A6), Heating and Air Conditioning (A7), Engine Performance (A8), Advanced Engine Performance Specialist (L1)
	Refrigerant Safety and Handling	
	Emissions Mechanic	
Postsecondary Certificates, Diplomas or Associate Degrees	A.A.S. Automotive Technology (Northern Virginia Community College)	
National Workforce Needs	U.S. Department of Labor Statistics, Virginia View (www.vaview.vt.edu)	772,675 in 2006 projected to grow to 883,131 by 2016 with a 14.3 percent change
Virginia Strategic Growth Area		Project 16.5 percent growth for Automotive Technicians in the state of Virginia compared to 14.3 percent national growth.
Regional Workforce Needs		6,670 projected to 7,729 by 2014, 15.9 percent The Northern Virginia Workforce Investment Board projects a 14 percent growth for the region.
Relationship to STEM	Automotive Technology incorporates science, technology, engineering, and mathematics.	
Diplomas and Seals	Advanced Technical Seal Standard and Advanced Diploma State Scholars Core	

**Federal Career Cluster: Information Technology
Pathway: Information Support and Services**

High School Certifications	Students begin certification programs (to be completed at Northern Virginia Community College)	
Industry Credentials (Preparation provided through Northern Virginia Community College coursework)	CCNA (Cisco Certified Network Administrator)	
	CompTIA A+	
Postsecondary Certificates, Diplomas or Associate Degrees	A.S. Information Technology (Northern Virginia Community College) AAS Information Systems Technology (Northern Virginia Community College)	
Virginia Strategic Growth Area	Virginia Employment Commission, Virginia's Electronic Labor Market Access (http://velma.virtuallmi.com)	Predicts computer-related careers (e.g., programmers, network analysts, database administrators) to be among the 20 fastest-growing occupations in Virginia with projected increase in job openings between 48 and 69 percent between 2002 and 2012.
Regional Workforce Needs	Greater Washington Knowledge Worker	28.0 percent growth is projected for the Greater Washington Region between 2005 and 2014 increasing from 219,950 to a projected 281,540
Relationship to STEM	Information Technology is incorporated through the 'T' is STEM and is infused throughout mathematics, science, and engineering as well.	
Diplomas and Seals	Advanced Technical Seal Advanced Diploma Commonwealth Scholars Core	

Appendix F
Commonwealth Scholars Course of Study

Commonwealth Scholars Course of Study

- 4 English courses
- 3 Mathematics courses
- 3 Laboratory science courses
- 3.5 History and social science courses (choose from U.S. and Virginia history, World history, U.S. and Virginia government, world geography, economics, financial literacy)
- 1 Fine arts or career and technical education course
- 2 Foreign language courses (in the same language)
- To earn a high school diploma in Virginia, students must meet all graduation requirements including verified credits.

Appendix G
Certifications

Certifications

Preparation for Certifications Available through the Arlington Career Center

NAME	#EARNED	#TESTED	PERCENT PASSED
ADOBE PHOTOSHOP	2	2	100
COMPUTER FORENSIC	1	1	100
COMPUTER FUNDAMENTAL (MAC OS X)	1	1	100
COMPUTER FUNDAMENTAL (WIN 2000)	1	1	100
EMT	28	28	100
FAA PRIVATE PILOT	8	16	50
FLASH MX	4	4	100
HVAC EPA 608 REFRIGERENT RECOVERY	2	5	40
IC3 CERTIFICATION	6	121	5
INTERNET SECURITY	1	1	100
JAVAI	5	8	63
MOS WORD 2003	4	14	29
NAT'L PROF CERTIFICATION	8	12	67
NETWORKING CONCEPTS	1	5	20
NOCTI ACCOUNTING BASIC	1	10	10
NOCTI CARPENTRY	2	11	18
NOCTI COMMERCIAL FOODS	1	4	25
NOCTI EARLY CHILDHOOD	5	11	45
NOCTI TELEVISION	13	31	42
PETFIRSTAID&CPR	60	60	100
RBT COPPER-BASED NETWORK CABLING	8	8	100
RBT SYSTEMS FIBER OPTICS NETWORK CABLING	4	6	67
RED CROSS CPR	43	48	90
RED CROSS STANDARD FIRST AID	45	48	94



CIW	CIW Associate (Certified Internet Webmaster Associate)
CompTIA	A+ Network+ (Hardware) I-Net+ (Software) Security+ Linux+
Cisco	CCENT (Cisco Certified Entry Network Technician) CCNA (Cisco Certified Networking Associate) CCNP (Cisco Certified Networking Professional)
Oracle	OCP (Oracle 10g Database Admin Certified Professional) OCA (Oracle 9i Database Admin Certified Associate) OCP (Oracle 9i Database Admin Certified Professional) OCA (Oracle9i PL/SQL Developer Certified Associate) OCP (Oracle9i Forms Developer Certified Professional) OCA (Oracle 10g Database Admin Certified Associate)
Planet 3 Wireless	CWNA (Certified Wireless Network Administrator)
(ISC)2	CISSP (Certified Info Systems Security Professional)
Certiport	IC3 (Internet and Computing Core Certification)
Adobe	Certified Dreamweaver MX 2004 Developer Certified Flash MX 2004 Developer Certified Flash MX 2004 Designer Certified Cold Fusion MX 7 Developer+
Red Hat	Red Hat Certified Engineer Red Hat Certified Technician
Microsoft	MCP (non-specific) MCP (programming) MCDST (Certified Desktop Support Technician) MCSA (Microsoft Certified Systems Admin) MCSE Microsoft Certified Systems Engineer Microsoft Office Specialist
Sun	Sun Certified Programmer for Java 2

Appendix H

Pathways

Pathways

Federal Career Cluster: Science, Technology, Engineering & Mathematics

Pathway: Engineering and Technology

Related Northern Virginia Community College Program: Associate of Science in Engineering

Governor's Career & Technical Academy in Arlington	GRADE	English	Math	Science	Social Studies	Elective	Elective	Elective	
	Interest Inventory Administered and Plan of Study Initiated for all Learners								
	7	English Language Arts	Math 7	Life Science	US History 1865 - Present	Elective	Health and Physical Education	Elective	
	8	English Language Arts	Math 8 or Algebra I (3130)	Physical Science	World Geography	Elective	Health and Physical Education	Elective	
	9	English 9 (1130)	Algebra I (3130) or Geometry (3143)	Biology (4310) or Earth and Space Science (4210)	World History (2216)	Foreign Language	P.E. Health I (7320 and 7310)	Elective	
	10	English 10 (1140)	Geometry (3143) or Algebra II (3135)	Chemistry (4410)	Economics (2800)	Foreign Language	P.E. Health II (7400)	Engineering 1	
	11	English 11 (1150) or AP English Language and Composition (1196)	Algebra II (3135) or Precalculus (3162)	Principles of Physics (4500), Physics (4510), or Intensified Physics (4515)	Virginia and American History (2360) or AP Virginia and American History (2319)	Foreign Language	Engineering 2 (8492)		
	College Placement Assessments-Academic/Career Advisement Provided								
	12	English 12 (1160) or AP English Literature and Composition (1195)	Precalculus (3162) or AP Calculus AB/BC (3177/3179) or Statistics (3190), Multivariable Calculus (3178)	AP Biology (4370), AP Chemistry (4470), or AP Physics (4570)	Virginia and US Government (2440) or AP Virginia and US Government (2445)	Dual enrollment Foreign Language	Engineering 3/4 (6672/6671)		
	Courses to be Considered for Dual Enrollment for Completion of Associate of Science Degree								
12	ENG 111/ENG 112 (College Composition I & II)	MTH 173/ MTH 174 (Calculus with Analytical Geometry I & II)	CHEM 111/CHEM 112 (College Chemistry I & II)	PLS 211/PLS 212 (U.S. Government I & II)	Dual enrollment Foreign Language	EGR 120/ EGR 126 (Introduction to Engineering/Computer Programming for Engineers)	SDV 100 (College Success Skills)		
Northern Virginia Community College									
Year 13	SPD 100 (3 credits)/ SPD 110 (3 credits)	MTH 277 (4 credits)/ EGR 246 (3 credits)	PHY 231 (5 credits) / PHY 232 (5 credits)	EGR 240 (3 credits)	EGR 206 (2 credits)/ EGR 245 (3 credits)	PED 116 (1 credit) / RPK 100 (1 credit)			

Federal Career Cluster: Arts, Audio/Video Technology & Communications
 Pathway: Audio and Video Technology and Film
 Related Northern Virginia Community College Program: Associate of Science in Social Science or
 Associate of Arts in Liberal Arts

Governor's Career & Technical Academy in Arlington	GRADE	English	Math	Science	Social Studies	Elective	Elective	Elective	
	Interest Inventory Administered and Plan of Study Initiated for all Learners								
	7	English Language Arts	Math 7	Life Science	US History 1865 - Present	Elective	Elective	Health and Physical Education	
	8	English Language Arts	Math 8 or Algebra	Physical Science	World Geography	Elective	Elective	Health and Physical Education	
	9	English 9 (1130)	Algebra I (3130) or Geometry (3143)	Biology (4310) or Earth and Space Science (4210)	World History (2216)	Elective	Intro to IT (8483)	P.E. Health I (7320 and 7310)	
	10	English 10 (1140)	Geometry (3143) or Algebra II (3135)	Chemistry (4410)	Economics (2800)	Elective	Computer Science I (6640)	P.E. Health II (7400)	
	11	English 11 (1150) or AP English Literature and Composition (1196)	Algebra II (3135) or Precalculus (3162)	Principles of Physics (4500), Physics (4510), or Intensified Physics (4515)	Virginia and American History (2360) or AP Virginia and American History (2319)	Video Production I (8689) or Commercial Arts I (8571)		Dual enrollment Chinese (5610/5611) or Arabic (5810/5811)	
	College Placement Assessments-Academic/Career Advisement Provided								
	12	English 12 (1160) or AP English Literature and Composition (1195)	Precalculus (3162) or AP Calculus AB/BC (3177/3179) or Statistics (3190), Multivariable Calculus (3178)	AP Biology (4370), AP Chemistry (4470), or AP Physics (4570)	Virginia and US Government (2440) or AP Virginia and US Government (2445)	Video Production II (8690) or Graphics for the Web (8635)		Dual enrollment Chinese (5620/5621) or Arabic (5820/5821)	
	Courses to be Considered for Dual Enrollment								
12	To be determined by student's academic requirements for completion of degree.								
Northern Virginia Community College									
Year 13	To be determined by student's academic requirements for completion of degree.								

Federal Career Cluster: Health Science

Pathway: Support Services

Related Northern Virginia Community College Programs: Career Studies Certificates

Governor's Career & Technical Academy in Arlington	GRADE	English	Math	Science	Social Studies	Elective	Elective	Elective	
	Interest Inventory Administered and Plan of Study Initiated for all Learners								
	7	English Language Arts	Math 7	Life Science	US History 1865 - Present	Elective	Health and Physical Education	Elective	
	8	English Language Arts	Math 8 or Algebra	Physical Science	World Geography	Elective	Health and Physical Education	Elective	
	9	English 9 (1130)	Algebra I (3130) or Geometry (3143)	Biology (4310) or Earth and Space Science (4210)	World History (2216)	Foreign Language	P.E. Health I (7320 and 7310)	Elective	
	10	English 10 (1140)	Geometry (3143) or Algebra II (3135)	Chemistry (4410)	Economics (2800)	Foreign Language	P.E. Health II (7400)	Elective	
	11	English 11 (1150) or AP English Literature and Composition (1196)	Algebra II (3135) or Precalculus (3162)	Principles of Physics (4500), Physics (4510), or Intensified Physics (4515)	Virginia and American History (2360) or AP Virginia and American History (2319)	Emergency Medical Technician (8334)		Elective	
	College Placement Assessments-Academic/Career Advisement Provided								
	12	English 12 (1160) or AP English Literature and Composition (1195)	Precalculus (3162) or AP Calculus AB/BC (3177/3179) or Statistics (3190), Multivariable Calculus (3178)	AP Biology (4370), AP Chemistry (4470), or AP Physics (4570)	Virginia and US Government (2440) or AP Virginia and US Government (2445)	Physical Therapy (8332)	Dual enrollment Chinese (5610/5611) or Arabic (5810/5811)	Elective	
	Courses to be Considered for Dual Enrollment for Completion of Career Studies Certificate								
12	To be determined by student's academic requirements for completion of career studies certificate.								
Northern Virginia Community College									
Year 13	To be determined by student's academic requirements for completion of career studies certificate.								

Federal Career Cluster: Information Technology
 Pathway: Information Support and Services
 Related Northern Virginia Community College Program: Associate of Science in Information Technology
 or Associate of Applied Science in Information Technology

Governor's Career & Technical Academy in Arlington	GRADE	English	Math	Science	Social Studies	Elective	Elective	Elective	
	Interest Inventory Administered and Plan of Study Initiated for all Learners								
	7	English Language Arts	Math 7	Life Science	US History 1865 - Present	Elective	Health and Physical Education	Elective	
	8	English Language Arts	Math 8 or Algebra	Physical Science	World Geography	Elective	Health and Physical Education	Elective	
	9	English 9 (1130)	Algebra I (3130) or Geometry (3143)	Biology (4310) or Earth and Space Science (4210)	World History (2216)	Intro to IT (6116)	P.E. Health I (7320 and 7310)	Elective	
	10	English 10 (1140)	Geometry (3143) or Algebra II (3135)	Chemistry (4410)	Economics (2800)	Computer Science I (6640)	P.E. Health II (7400)	Elective	
	11	English 11 (1150) or AP English Literature and Composition (1196)	Algebra II (3135) or Precalculus (3162)	Principles of Physics (4500), Physics (4510), or Intensified Physics (4515)	Virginia and American History (2360) or AP Virginia and American History (2319)	Computer Science II (6641)	Foreign Language	Elective	
	College Placement Assessments-Academic/Career Advisement Provided								
	12	English 12 (1160) or AP English Literature and Composition (1195)	Precalculus (3162) or AP Calculus AB/BC (3177/3179) or Statistics (3190), Multivariable Calculus (3178)	AP Biology (4370), AP Chemistry (4470), or AP Physics (4570)	Virginia and US Government (2440) or AP Virginia and US Government (2445)	Computer Science Advanced Topics (6645)	Elective	Elective	
	Courses to be Considered for Dual Enrollment for Completion of Associate of Science Degree								
12	DE ENG 111/112 (College Comp I & II)	DE MTH 163 (Precalculus I or higher)/MTH 271 (Applied Calculus I)	DE Natural Science/Lab Elective	DE PLS 211-212 (U.S. Government I & II)	DE Foreign Language	DE ITE 115 (Intro to Computer App & Concepts)/ ITN 100 (Intro to Telecomm.)	DE SDV 100 (College Success Skills)		
Northern Virginia Community College									
Year 13	ITP 120 (4 credits)/ITD 256 (3 credits)	ITE 221 (3 credits)	HIS Elective (3 credits)	SPD 110 (3 credits)	ITE 170 (3 credits)/ITP 100 (3 credits)	PED 116 (1 credit/ RPK activities course (1 credit)			

Federal Career Cluster: Transportation, Distribution & Logistics

Pathway: Facility and Mobile Equipment Maintenance

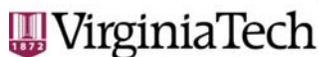
Related Northern Virginia Community College Program: Associate of Applied Science in Automotive Technology

GRADE	English	Math	Science	Social Studies	Elective	Elective	Elective
	Interest Inventory Administered and Plan of Study Initiated for all Learners						
7	English Language Arts	Math 7	Life Science	US History 1865 - Present	Elective	Health and Physical Education	Elective
8	English Language Arts	Math 8 or Algebra	Physical Science	World Geography	Elective	Health and Physical Education	Elective
9	English 9 (1130)	Algebra I (3130) or Geometry (3143)	Biology (4310) or Earth and Space Science (4210)	World History (2216)	Foreign Language	P.E. Health I (7320 and 7310)	Elective
10	English 10 (1140)	Geometry (3143) or Algebra II (3135)	Chemistry (4410)	Economics (2800)	Foreign Language	P.E. Health II (7400)	Automotive Technology I (8506)
11	English 11 (1150) or AP English Literature and Composition (1196)	Algebra II (3135) or Precalculus (3162)	Principles of Physics (4500), Physics (4510), or Intensified Physics (4515)	Virginia and American History (2360) or AP Virginia and American History (2319)	Foreign Language		Automotive Technology II (8507) - Dual enrollment with AUT 100 (2 credits) and AUT 267 (4 credits)
College Placement Assessments-Academic/Career Advisement Provided							
12	English 12 (1160) or AP English Literature and Composition (1195)	Precalculus (3162) or AP Calculus AB/BC (3177/3179) or Statistics (3190), Multivariable Calculus (3178)	AP Biology (4370), AP Chemistry (4470), or AP Physics (4570)	Virginia and US Government (2440) or AP Virginia and US Government (2445)	Dual enrollment Foreign Language		Automotive Technology III (8508) (Dual enrollment with AUT 266)
Courses to be Considered for Dual Enrollment for Completion of Associate of Applied Science Degree							
12	ENG 111/ENG 112 (College Composition I & II)	MTH 151/ MTH 152 (Math for the Liberal Arts I & II)	PHY 101/PHY 102 (Introduction to Physics I & II)	PLS 211/PLS 212 (U.S. Government I & II)	AUT 111/AUT 266 (Automotive Engines I/Auto Alignment Suspension & Steering)	AUT 241 (Automotive Electricity I)	SDV 100 (College Success Skills)
Northern Virginia Community College							
Year 13	SPD 110 (3 credits)	AUT 121 (4 credits)/ AUT 112 (4 credits)	AUT 122 (4 credits)/ AUT 236 (4 credits)	AUT 141 (4 credits)/ AUT 142 (4 credits)	AUT 242 (4 credits)/ AUT 245 (4 credits)	PED 116 (1 credit)/ RPK 100 (1 credit)	

Governor's Career & Technical Academy in Arlington

Appendix I
Virginia Tech Program in Integrative STEM Education

Virginia Tech Program in Integrative STEM Education



College of Liberal Arts
and Human Sciences

STEM Education

300 War Memorial Hall (0313)
Blacksburg, Virginia 24061
540/231-8173 Fax: 540/231-9075
<http://TechEd.vt.edu/TE/STEM.html> msanders@vt.edu

Integrative STEM Education Program Graduate Certificate & Degree Options at VIRGINIA TECH

In Spring 2006, Virginia Tech (VT) became the first in the US to offer an *Integrative STEM Education* graduate program. These new graduate degree options develop 21st century K-16 STEM educators, leaders, scholars, and researchers prepared to investigate, teach, and disseminate new integrative approaches to STEM teaching and learning. Our focus on the investigation and application of new integrative approaches to STEM education uniquely sets us apart from other STEM programs. *Integrative STEM Education* is wholly consistent with, and is an exemplar of, the recommendations of the seminal STEM education reform publications of the past two decades, including *Science for All Americans*, *Benchmarks for Science Literacy*, *Principles and Standards for School Mathematics*, *National Science Education Standards*, *Standards for Technological Literacy*, and *Educating the Engineer of 2020*.

Integrative STEM Education Core Classes*

- STEM Education Pedagogy
- STEM Education Foundations
- STEM Education Research
- STEM Education Trends & Issues
- STEM Education Field Study

*Offered on the VT campus since Spring 2006 and online since Fall 2007.

Integrative STEM Education Certificate** and Degree Options

Certificate Program:** 12 graduate semester hours (from the *Integrative STEM Education* core above) that prepare educators and leaders to teach and/or facilitate new integrative approaches in STEM education.

** The Certificate option is pending university approval; all other degrees offered since Spring 2006.

Master's Degree: A program primarily for K-12 STEM educators and related fields that develops 21st century STEM educators, leaders and scholars by facilitating broader understanding of the intersections among the STEM/ STEM education disciplines and new integrative approaches for the teaching/learning STEM content.

Education Specialist (EdS) Degree: A program for those holding master's degrees in education and STEM fields that develops STEM educators, leaders, and scholars for the 21st century. Scholar/practitioners in this program expand their understanding of integrative STEM/STEM education, investigate curricular connections among the STEM subject areas, and apply integrative strategies to the design of instructional materials for teaching and learning STEM concepts.

Doctor of Education (EdD) Degree: A doctoral program designed primarily to prepare 21st century K-16 STEM educators, leaders, and scholars for postsecondary teaching, teacher education, and leadership positions.

Doctor of Philosophy (PhD) Degree: A doctoral program designed principally to develop 21st century university-level STEM educators, researchers, scholars, and leaders who wish to conduct research pertaining to teaching and learning, as situated at the intersections of the STEM education disciplines.

For More Information

Mark Sanders, School of Education, 300 War Memorial Hall, Virginia Tech, Blacksburg, VA 24061-0313
(540) 231-8173 (540) 231-9075 (fax) <msanders@vt.edu> <http://TechEd.vt.edu/TE/STEM.html>

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution



STEM Education
300 War Memorial Hall (0313)
Blacksburg, Virginia 24061
540/231-8173 Fax: 540/231-9075
<http://TechEd.vt.edu/TE/STEM.html>

CORE COURSES: *INTEGRATIVE STEM EDUCATION*

EDCI 5774: STEM EDUCATION FOUNDATIONS

DESCRIPTION: An introduction to the educational, political, economic, and socio-cultural foundations of the STEM and STEM education disciplines. The course opens with an introduction to the nature of each of the STEM and STEM education disciplines, and follows with investigation of related political, economic, and socio-cultural foundations. This course provides students with a framework for constructing personal perspectives and philosophies of integrative STEM education.

EDCI 5774: STEM EDUCATION PEDAGOGY

DESCRIPTION: Through careful analysis, both individual and collaborative, of readings and case studies students in this course will explore the signature pedagogies unique to the fields of science, technology, engineering, and mathematics (STEM) education. In this exploration we will reveal both strengths and limitations associated with signature pedagogies, and gain insights into pedagogical strategies that can serve to enhance practices within our chosen STEM fields. The overarching goal is to better understand the distinct pedagogical approaches to teaching and learning that cross both professional and liberal education lines.

EDCI 5774: STEM EDUCATION TRENDS AND ISSUES

DESCRIPTION: An introduction to contemporary K-16 STEM education trends and issues, including both integrative and within-discipline trends/issues. Topics such as STEM literacy, integrative STEM teaching / learning, purposeful design and inquiry, legislative initiatives, and change theory are among those addressed in this course.

EDCI 5774: STEM EDUCATION RESEARCH

DESCRIPTION: Designed to survey the educational research practices of STEM disciplines, this course investigates the approaches used in studying the teaching/learning processes within the context of each discipline. Individually and collaboratively students will discover similarities, distinctions and overlaps among questions posed, research designs, and investigations into best practices with respect to improving teaching and learning among STEM disciplines.

EDCI 5784: STEM EDUCATION SEMINAR

DESCRIPTION: This course is designed as a general exploration into the issues surrounding the development of a STEM literate populace through education. This exploration will be facilitated by a blend of readings, discussions, and personal reflections. Course instruction will follow a seminar format appropriate for such a graduate level course.

EDCI 5964: FIELD STUDIES IN [STEM] EDUCATION (Variable Credit; P/F only)

DESCRIPTION: Applied study in one or more educational institutions. Research, evaluation, curricular, and instructional projects are examples of appropriate areas of study.

FOR MORE INFORMATION: Mark Sanders, 540/231-8173, msanders@vt.edu

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution

Appendix J
Insurance Certificates

Insurance Certificates



NORTHERN VIRGINIA COMMUNITY COLLEGE

CERTIFICATE OF COVERAGE

ISSUED TO: All Interested Parties

INSURER: COMMONWEALTH OF VIRGINIA

AUTHORIZATION: *Commonwealth of Virginia Risk Management Plan and §§ 2.2-1837 and 2.2-1840, Code of Virginia*

COVERAGE PERIOD: Continuous

PURPOSE: To provide verification of general liability insurance for College academic activities.

COVERAGES: Tort Liability, including Medical Malpractice and Automobile when applicable. Coverage also applies for liability and physical damage for rental/leased vehicles used on official state business.

LIMITS: \$2,000,000 – Tort claims against persons
 \$100,000 – Tort claims against the Commonwealth
 \$1,925,000 – Medical Incident per occurrence
 Actual Cash Value – Non-owned agency-authorized vehicles
 Statutory benefits for workers' compensation

ADMINISTRATOR: Virginia Division of Risk Management
 P.O. Box 1879
 Richmond, VA 23218-1879

This is for information only. It does not alter any provisions of the *Commonwealth of Virginia Risk Management Plan* nor the *Code of Virginia*.

VERIFIED BY: Alison W. Baker
 Alison W. Baker
 Vice President, Finance & Administration

7/12/07
 Date

INSURANCE BINDER		Date: June 30, 2007			
This Binder is a temporary insurance contract, subject to the conditions shown below.					
PRODUCER: VSBA Insurance Services 2320 Hunters Way Charlottesville, VA 22911		Companies Affording Coverage			
		Company A VSBA Property & Casualty Pool Company B VSBA Workers' Comp Group Company C AIG Company D CNA			
INSURED: Arlington County Schools 1426 N. Quincey Street Arlington, VA 22207					
Coverages					
This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Limits shown may have been reduced by paid claims.					
CD LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	LIMITS
A	GENERAL LIABILITY - OCCURRENCE FORM	VSBA 07-055-GL	07/01/2007	07/01/2008	General Aggregate \$ 2,000,000 Premises Medical Payment \$ 10,000 Personal & ADV Injury \$ 1,000,000 Each Occurrence \$ 1,000,000 Fire Damage (Any one fire) \$ 300,000
A	AUTOMOBILE COVERAGE	VSBA 07-055-AL/GLL/GK	07/01/2007	07/01/2008	Combined Single Limit \$ 1,000,000 UM/UM \$ 1,000,000 Auto Med Pay \$ 5,000 Physical Damage \$ N/A Comp Deductible \$ N/A Collision Deductible \$ N/A
	SCHOOL BOARD LEGAL - CLAIMS MADE FORM				Per Claim \$ 1,000,000 Annual Aggregate \$ 1,000,000 Deductible \$ 0
	CRIME				Blanket \$ 250,000 Deductible \$ 250
	PROPERTY				\$1,000 Deductible/Blanket Per Schedule on File
A	EXCESS LIABILITY	VSBA 07-055-EX	07/01/2007	07/01/2008	Each Occurrence \$5,000,000
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				WC Statutory Limits Employers Liability Each Accident \$ 1,000,000 Employers Liability Disease - Policy Limit \$ 1,000,000 Employers Liability Disease-Each Emp. \$ 1,000,000
	STUDENT ATHLETIC ACCIDENT & STUDENT ACCIDENT				Maximum Limit Per Accident \$
	BOILER & MACHINERY				Limit Per Breakdown \$10,000,000 Deductible \$ 2,500
Description of Operations/Locations/Vehicles/Special Items:					
Evidence Coverage					
CERTIFICATE HOLDER: Arlington County Schools 1426 N. Quincey Street Arlington, VA 22207				CANCELLATION Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 90 days written notice to the certificate holder named to the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.	

AUTHORIZED REPRESENTATIVE

David B. Smith

DATE:

June 26, 2007

school division, business and industry, and postsecondary education. Six partnerships have been awarded grants to assist with the creation of Virginia's first Governor's Career and Technical Academies.

On November 29, 2007, the Board of Education approved the criteria to establish a Governor's Career and Technical Academy. Subsequently, on March 19, 2008, the Board approved the standards for the Governor's Career and Technical Education Exemplary Standards Awards Program, in which all Career and Technical Academies must participate.

As required by the Board of Education, the State Council of Higher Education in Virginia (SCHEV) has reviewed the attached proposal and recommends that the Board approve the proposal. Staff at the Virginia Department of Education (DOE) have also reviewed the proposal in the context of the Board's criteria. An executive summary of the proposal is contained in Attachment A. Attachments B and C contain the reports from the reviews by SCHEV and the DOE. Attachment D contains the complete proposal.

Summary of Major Elements:

The Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Academy has an active partnership consisting of representation from Russell County Public Schools, University of Virginia's College at Wise, local government, business and industry. The STEM for LIFE Academy will be located in Russell County Public School's middle and high schools, the Russell County Career and Technical Center, and the University of Virginia's College at Wise Technology Center.

The STEM for LIFE Academy has a very strong middle school component with the goal of having all students complete Algebra I by the end of eighth grade. A strong mathematics background in the middle grades will prepare all Russell County students for rigorous coursework in high school. The coursework in the Academy will focus on three pathways: Engineering and Technology, Science and Mathematics, and Information Support and Services.

A major focus of the Academy is to build parent and community awareness and support. High school guidance counselors will receive extensive training so they can educate parents on the importance of postsecondary education in a rural area where STEM job opportunities are a recent addition to the economic landscape.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the proposal to establish the Governor's Career and Technical Academy: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE).

Impact on Resources:

Russell County Public Schools has received a planning grant through Virginia's participation in the National Governors Association's STEM Center Grant Program. Upon approval of the partnership's proposal by the Board of Education, the Department of Education will award an implementation grant to assist with further development of the program. The planning and implementation grant funds are available on a one-time basis only to the six partnerships that were selected through a grant competition associated with the National Governors Association's STEM Center Grant Program. Funding beyond those available through the grant must be provided at the local level.

Timetable for Further Review/Action:

Governor's Career and Technical Academies funded through the National Governors Association's STEM Center Grant Program must be in operation by the beginning of the 2008-2009 academic year.

STEM for LIFE Governor's Academy Executive Summary

Partnership Members:	Russell County Public Schools; Southwest Virginia Community College; The University of Virginia's College at Wise; Virginia Economic Development Program; Bostic, Tucker and Company; Virginia Coalfield Economic Development Authority; Appalachian Electric Power Company; Southwest Virginia Public Education Consortium; Town of Lebanon
Lead Entity:	Russell County Public Schools
Fiscal Agent:	Russell County Public Schools
Contact Person:	Dr. Lorraine C. Turner, Superintendent Russell County Public Schools 276-889-6518 lturner@russell.k12.va.us
Academy Location:	STEM for LIFE Governor's Academy P.O. Box 8 One School Board Drive Lebanon, Virginia 24266
Number Students Served:	284 sixth graders in 2008-2009, 284 seventh graders in 2009-2010, 319 eighth graders in 2010-2011, and 425 high school students taking dual enrollment courses from 2008 through 2012.
Career Pathways:	Science and Mathematics Engineering and Technology Information Support and Services
Academy Goals and Description:	Russell County Public Schools, in partnership with business, industry, higher education, and local government, has developed the Science, Technology, Engineering and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Governor's Career and Technical Academy. The Academy will provide opportunities for all students in grades six through twelve to learn about STEM careers that are available locally, regionally, and nationally. In addition, the Academy will develop the academic skills and competencies necessary to prepare students for the work force and postsecondary education in STEM fields. The Academy pathways emphasize both academic and hands-on experiences. To gain parental and other local support for the Academy and its goals, career awareness sessions for parents and community members will be held. It is the philosophy of the STEM for LIFE Academy that a team effort is essential to the success of this program and that ongoing communication is key to its sustainability.

It is the intent of the STEM for LIFE Academy founders to expand into the surrounding school divisions and to produce a pipeline through which all students in southwest Virginia school divisions have access to STEM opportunities.

Highlights of the Program:

- STEM for LIFE will begin in the sixth grade with students enrolling in the Gateway to Technology sequence, the middle school component of Project Lead the Way, which includes courses in Design and Modeling and the Magic of Electrons. Keyboarding classes will also be required for two nine-week periods.
- All seventh-grade students will continue to develop keyboarding skills. They will enroll in the continuation of the Gateway to Technology sequence through courses in Science of Technology, Automation of Robotics, and Flight and Space.
- A summer program for students in grades seven, eight, and nine will afford students the opportunity to study in the STEM areas and work on an original project.
- Through the Kuder career assessment program, each student will be assessed, explore jobs that align with identified areas of interest, and complete a job interview planner.
- A transition plan for students entering high school will be in place for seventh- and eighth-grade students to assist in a successful high school transition.
- All high school students in the Academy will be required to complete a service-learning project in addition to the internship, mentoring or job shadowing experience.
- Parents will receive updates and projections about career preparation and opportunities which are available locally, regionally, and statewide.
- Dual enrollment courses will be offered through Southwest Virginia Community College either with instructors at the high school or through distance learning.
- Students who graduate from one of the STEM for LIFE Academy pathways will meet necessary requirements in mathematics, science, and career and technical education to qualify for Technical and Advanced Technical diplomas.
- Extensive professional development for all academic and career and technical education teachers, guidance counselors, and administrators responsible for aspects of the Academy began in the spring of 2008 and will continue throughout the first year of the Academy.

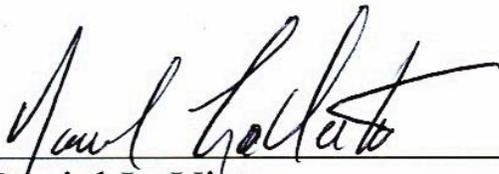
**The State Council of Higher Education for
Virginia**

**Review of Governor's Career and Technical
Academy Proposal**

Name of Lead Entity on Proposal: Russell County Public Schools

Date of Review: May 22, 2008

The State Council of Higher Education for Virginia recommends approval of the STEM for LIFE Governor's Career and Technical Academy as a Governor's Career and Technical Academy.



Dr. Daniel LaVista
Executive Director
State Council for Higher Education

5.23.08

Date

State Council of Higher Education for Virginia
**Governor's Career and Technical Academies Postsecondary Curriculum Review
 Checklist**

Academy Name	Collaborating Partners	Total Funds Requested	Allocated Funds for Postsecondary Component
Stem for Life Governor's Career and Technical Academy	Russell County Public Schools, UVA at Wise, Southwest Virginia Community College, People Inc. of Southwest VA (see appendix G for complete list)	\$100,000	NA

Criteria

Category 1: Postsecondary Accreditation and Approvals

YES/NO

- YES **Postsecondary institution is appropriately accredited**
- YES **Proposed postsecondary program has specialized accreditation, if applicable**
- YES **Proposed postsecondary program is SCHEV and/or VCCS approved**
- NA **Proposed postsecondary program will be seeking SCHEV and/or VCCS approval**

Category 2: Governor’s Career and Technical Academy Requirements

YES/NO

- YES **Evidence of a partnership with a postsecondary institution, business, or industry, and demonstrated roles for each entity**

- YES **Offers at least one career pathway in a field identified by a statewide authority or organization as a strategic growth area for Virginia**

- YES **Offers at least one career pathway addressing regional and local work force demand in a high-wage, high-skill field identified by employers and work force officials**

- YES **At least one of the two career pathways is in a STEM-related field**

Category 3: Postsecondary/Business Component Requirements

YES/NO

- YES **Provides opportunities for students to earn industry credentials, state licensure, associate or baccalaureate degrees, and college credit for work-based experiences**

- YES **Articulates with baccalaureate programs or to higher levels of training or professional credentialing**

- YES **Demonstrates P-16 integration including curriculum development with high school, college, and university faculty (desired)**

Includes college faculty as adjunct faculty of the academy (desired)

- YES **Provides opportunities for students to participate in work-based experiences**

Category 4: Academic Quality

YES/NO

- YES **Requires appropriate postsecondary faculty qualifications**
- YES **Requires faculty to hold industry certification, where necessary**
- YES **Planned professional development for faculty and administrators**
- YES **Planned systematic program and learning outcomes assessment**

Category 5: Administration and Funding

YES/NO

- YES **Funding is sufficient to support effective administrative and operational needs including materials, administrative personnel, and facilities**
- YES **Funding is sufficient to sustain faculty salaries, curriculum development costs, and instructional materials and delivery**
- YES **Facilities possess the necessary physical attributes to deliver the instructional program (classroom space, technology, labs, equipment)**

Comments

The proposed academy has strong potential to solidify high tech industries in Russell County. Broad representations of stakeholders have been involved in the planning, and there is a strong plan for early involvement of students in career awareness education.

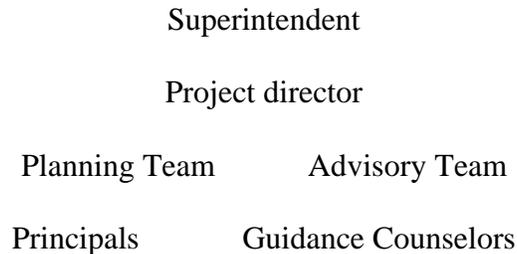
Russell County responses to additional questions from SCHEV are attached.

**Responses to SCHEV Request for Additional Information
STEM for LIFE Academy
May 21, 2008**

1. Provide an expanded explanation of how the Academy will be managed, including a more detailed budget narrative of personnel costs and a brief position description for the project director.

Management of the STEM for LIFE Governor’s Academy will be the responsibility of the project director. The director will work with principals and guidance counselors to communicate, plan, and implement all aspects of the program. The director will also plan and arrange for the delivery of professional development for teachers and counselors. Any issues that develop in the Academy will be resolved with the superintendent or with the advisory council of the Academy. The planning committee and the advisory council will set policy in accordance with Russell County Public Schools Board Policy to oversee the STEM for LIFE Academy.

The hierarchy of communication and responsibility is as follows:



Science Teachers - Technology Teachers - Engineering Teachers - Mathematics Teachers

The project director will:

1. Involve the community and school staff in preparation and implementation of the STEM grant;
2. Coordinate the services of all persons who work with the STEM for LIFE Academy and ensure that instructional materials and equipment are available to provide learning experiences in the STEM areas;
3. Oversee the maintenance of accurate recordkeeping, file reimbursements and reports as necessary; and
4. Collect data from the Academy for evaluation of the program, including the collection of all data required by the Virginia Department of Education.

The Academy will be managed on a daily basis by the project director. Input from the division superintendent, planning committee, advisory council, and the Academy’s partners will play an important role in providing direction and focus.

The project director is currently completing her dissertation for a Ph.D. in career and technical education and has extensive background and years of experience in education, instructional technology, and instructional design. In addition, for five years

she co-directed a regional systemic initiative funded by the National Science Foundation (NSF) in southwest Virginia which focused on many of the goals of the Academy, including STEM.

The role of the project director will be to:

- Ensure that the described goals of the Academy are met;
- Maintain communication with the division superintendent, partners, committees and councils;
- Collect data and provide for ongoing evaluation of the Academy;
- Provide teachers, counselors, students, and parents with frequent updates about work force needs and career opportunities locally and regionally;
- Provide for professional development for all teachers and counselors in the academy; and
- Deliver reports at all meetings with the superintendent and partners regarding Academy accomplishments and student performance.

Additions to the detailed narrative regarding personnel costs:

\$41,000 – Total of Personnel

\$15,000 – A portion of director’s salary

\$15,000 – A portion of one new Gateway to Technology Teacher

\$11,000 – A portion of one experienced teacher for Gateway to Technology

2. The application requirements state that students need a minimum C- average to be admitted. What type of in-depth analysis will the committee employ to account for differences in curriculum that individual applicants may bring to the process? For example, an applicant with a C- in Algebra I is very different from one who receives a C- in Calculus. For some students, the C- average may be setting the bar too low to ensure success in the more rigorous academy curriculum.

After reconsidering application requirements, Russell County Public Schools has decided to drop the C- average requirement and open the Academy to all students who are passing. The school division thanks SCHEV for bringing this to our attention. Inclusion of all students will align with the goals of the STEM for LIFE Academy.

3. Provide an expanded explanation of career assessment tools and activities for middle school students beyond the Kuder. Include how an expanded model would aid students not indicating interests in the industries targeted in the region, as well as students from special populations.

The proposed model for middle school students is focused on introducing students and their parents to the needs of the work force: locally, statewide and nationally. The intent is to provide opportunities for middle school students to enroll in courses, beginning in sixth grade, which will help them to develop problem solving skills, encourage creativity and inventiveness, and provide introductory coursework in technology and engineering. The Kuder assessment will be used to help students identify areas of interest and provide direction for study. Middle school counselors will work closely with students and parents to ensure that students understand their options. The Kuder assessment is designed to be assistive. While the Kuder assessment will be the primary tool for identification of areas of interest, guest speakers from local and regional businesses and career awareness events will provide additional information for students about work force opportunities and career options for the purpose of guiding students in their career choices. Students will participate in career fairs, tours of local businesses, and career exploration in core classes.

While one of the goals of the STEM for LIFE Governor's Academy is to add to the local work force, Russell County Schools understands that some of its students will elect to work outside of the region. Based on projections of work force needs in Virginia provided by the Virginia Employment Commission (2008) which indicate a high need for workers with strong science, technology, engineering, and mathematics skills, the anticipation is that coursework included in the Academy will enable graduates to successfully find work both locally and outside the region. The Academy will be available to all students, including students from special populations. As part of the teacher training program to prepare teachers for the Academy, training sessions have included all regular classroom teachers and all special education teachers.

4. Provide an expanded description of support services to include services that might be provided for students taking courses online. Additionally, estimate how many work-based experiences at local businesses will be available for students per school year.

All students who enroll in online courses will be monitored by a facilitator for the purpose of providing support, clarification about course goals, and answers to content questions. All online courses will be available during the regular school day, and facilitating teachers will be on hand to ensure that technology is working appropriately and to give assistance both instructionally and technologically as needed.

In high school, students will have a minimum of one work-based experience per year through local businesses, including opportunities for job shadowing, internships, and mentoring. In middle school, students will visit a minimum of two local businesses per year and have opportunities to talk with local business representatives.

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

Final Review

Title of Proposal: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE)

Lead Entity for Proposal: Russell County Public Schools

Date of Review: May 5, 2008

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

I. Partnership Capacity

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. An active, ongoing planning committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity. At a minimum, members must represent K-12 education (superintendent or designee), higher education, and business and industry. All partners must be represented on the committee.	X	X		5/5/08 A signature sheet is missing for Brian Hooker. 5/15/08 This omission has been corrected.
B. An advisory committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity.	X	X		5/5/08 David Prior has no signature sheet. 5/15/08 This omission has been corrected.
C. A written memorandum of agreement among school divisions, local businesses, postsecondary institutions, and any other partners that outlines ways in which community resources will contribute to the Governor's Career and Technical Academy to broaden the scope of students' educational experiences.	X			

Criteria	Documentation			Comments
	Full	Partial	None	
D. A statement of assurances that the Governor's Career and Technical Academy Planning Committee has reviewed provisions of <i>Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies</i> and agrees to follow the guidelines set forth in the document (see appendix).	X			
E. A statement of assurances that, if applicable, an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs (see appendix).	X			
Comments:				

II. Need/Rationale for the Academy

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. Demonstration of the need/rationale for the Academy. This statement should be concise and state the major reasons to have a Governor's Career and Technical Academy, including need at the state, local and/or regional levels.	X			
B. A description of the enhanced or additional offerings in science, technology, engineering, and/or mathematics (STEM) that will meet the need described above.	X			Algebra I for all eighth graders is an ambitious goal. The middle school program seems very strong.

Criteria	Documentation			Comments
	Full	Partial	None	
C. A fiscal agent that is a public entity, including a certification that the entity is willing and able to serve in that capacity.	X			
Comments:				

III. Program Description

Each Governor’s Career and Technical Academy planning committee shall develop cooperatively with local school divisions, business, community, and higher education partners and have available for review and dissemination, a program description that includes:

A. A statement of program goals addressing the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Rigorous academic content in career and technical instruction;	X			
2. An emphasis on STEM career pathways;	X			
3. Individualized high school plans to ensure course selections that are aligned with students’ transition and career goals after high school;	X			
4. Evidence that graduates will complete a college and work readiness curriculum, minimally at the level specified for Commonwealth Scholars Course of Study (State Scholars Core) with the possibility of pre-approved substitution of equivalent courses where there may be more relevant course selections for a particular career pathway;	X	X		5/5/08 Commonwealth Scholars is not correctly addressed. 5/15/08 This has been corrected through the program of studies for each pathway.

Criteria	Documentation			Comments
	Full	Partial	None	
5. Evidence that graduates will qualify for the Technical and/or the Advanced Technical Diplomas; and	X			
6. Incorporation of Virginia's Workplace Readiness Skills.	X			
Comments:				

B. A statement of program objectives and performance measures to:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Improve academic achievement of Academy students;	X			
2. Increase completion of dual enrollment courses;	X			
3. Provide work place readiness experiences for students through strong partnerships with businesses;	X			
4. Increase high school graduation rates;	X			
5. Reduce dropout rates;	X			
6. Increase enrollment and retention in postsecondary education;	X			
7. Increase the proportion of students completing a college and work place ready curriculum in high school;	X			
8. Reduce the proportion of students requiring remediation in college;	X			
9. Increase the number of industry certifications awarded to high school students; and	X			

Criteria	Documentation			Comments
	Full	Partial	None	
10. Increase the number of graduates employed in high-wage, high-demand and high-skill careers.	X			
Comments:				

C. A brief description of the proposed program, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Site location;	X			
2. Number of students to be served;	X		X	5/5/08 The number of students served is not mentioned in the proposal. 5/15/08 This now appears in the proposal.
3. Grade levels;	X			
4. General curriculum design;	X			
5. List of courses to be delivered;	X			
6. Description of how/where the courses will be delivered. Courses may be delivered on a high school, technical center or community college campus, online, or in other innovative ways; and	X			
7. Designation of full-day or part-day, academic-year program.	X			
Comments:				

D. Evidence of participation in the Governor’s Exemplary Standards Award Program for Career and Technical Education.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Program and course descriptions

E.1. At least two well-articulated career pathways must be included that meet the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #1: Engineering and Technology				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor’s and graduate levels. These pathways may be in the same or different career clusters.	X			
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and motor sports, as well as modeling and simulation and nanotechnology or	X			

Criteria	Documentation			Comments
	Full	Partial	None	
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. At least one pathway must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #2: Science and Mathematics				
a. Each career pathway must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor's and graduate levels. These pathways may be in the same or different career clusters.	X			
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and	X			

Criteria	Documentation			Comments
	Full	Partial	None	
motor sports, as well as modeling and simulation and nanotechnology, <u>or</u>				
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. Of the two pathways described, at least one must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or the state.	X			Two of the pathways are in the STEM cluster.
e. Additional career pathways may address one of the areas described above, or an area identified by the partnership as an area of interest, growth, or expansion for students in the service area of the Academy.	X			Information Support and Services is a third pathway addressed by this Academy.
Comments:				

E.2 List of all requirements for successful program completion.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E.3 Academy graduates must achieve one or more of the following benchmarks:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as CLEP examinations, collaboratively designed or mutually approved end-of-course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; <u>or</u>	X			
b. Earn at least 9 transferable college credits as defined in the Early College Scholars program (includes dual enrollment, AP and other options); <u>or</u>	X			This Academy will require students to have 15 credits.
c. Earn an Associate Degree.				This is not required but is an option for students in this Academy.
Comments:				

E.4 Significant work-based experience must be included representing additional instruction or training beyond the classroom such as:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Cooperative Education; or	X			
b. Internships; or	X			
c. Job Shadowing; or	X			
d. Mentorships; or	X			
e. Project-based learning; or	X			
f. Service learning; or	X			
g. A combination of the above.				
Comments:				

F. Length of program and daily schedule: Governor’s Career and Technical Academies are defined by program content, not by the location or delivery system of courses. Evidence of the following must be submitted:

Criteria	Documentation			Comments
	Full	Partial	None	
Designation of full-day or part-day, academic-year program.	X			
Comments:				

G. Assurance from the fiscal agent that operating funds and facilities are available to support the Governor’s Career and Technical Academy and are adequate to meet the needs of the program.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Materials and equipment to be provided to accomplish program goals and objectives.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

I. Evidence of an internal evaluation process to effect program improvement, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. A review of the Academy’s policies, procedures, and outcomes;	X			
2. A review of the program design and instructional delivery;	X			
3. Consideration of feedback from students, staff, parents, the community, and partnership members; and	X			
4. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.	X			
Comments: The internal evaluation seems strong. Everyone associated with the Academy has a venue to provide input.				

IV. Administrative Procedures

Each Governor’s Career and Technical Academy must develop and maintain procedures developed cooperatively with participating partners. There should be evidence of procedures in the four areas that follow.

A. Partnerships - The role of business and industry, public school divisions, and postsecondary institutions in the partnership. The role of workforce and economic development entities should also be included if they are among the partners.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

B. Student recruitment, selection criteria, and admissions.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

C. Code of student conduct and attendance.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

D. Transportation provided by the school division or consortium that is in compliance with all applicable federal and state regulations.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Staff recruitment, selection, and assignment - The Governor’s Career and Technical Academy shall hire staff members who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

F. Staff development - The program will provide appropriate staff training in addition to staff planning time.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments: The professional development timeline provided in Appendix A is very detailed.				

G. Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employing Academy personnel.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Parent, student and community involvement.

Criteria	Documentation			Comments
	Full	Partial	None	
1. Preparation for entering the Academies should begin by eighth grade.	X			
2. Students, parents, teachers, and counselors should work collaboratively to:	X			
a. Complete career interest inventories;				
b. Prepare academic and career plans outlining an intended course of study in high school;	X			
c. Review multiple postsecondary pathways and the steps required to pursue them;	X			
d. Participate in career assessments to identify areas students should strengthen to qualify for their selected pathways; and	X			
e. Discuss available diplomas, seals, and other recognitions including admission to specialized programs such as Governor's Academies.	X			

I. Documentation of insurance, budget, and other fiscal information.

	Documentation			Comments
	Full	Partial	None	
Insurance	X			
Budget (from appendix)	X			
Budget Narrative	X			
Other	X			
Comments:				

Science, Technology, Engineering,
and Mathematics for Lifelong
Initiatives for Education
(STEM for LIFE)
Governor's Career and Technical
Academy

Proposal by Russell County Public
Schools

**Science, Technology, Engineering, and Mathematics for Lifelong
Initiatives for Education (STEM for LIFE)
Governor’s Career and Technical Academy
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Introduction

Russell County Public Schools, in partnership with business, industry, higher education, and local government has developed the Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Governor's Career and Technical Academy. The Academy will provide opportunities for all students in grades six through twelve to learn about careers in science, mathematics, engineering and technology (STEM) that are available locally, regionally, and nationally. In addition, it will help to develop academic skills and competencies that will prepare them for the work force and postsecondary education. Using information from a Kuder career assessment, an inventory designed to identify students' areas of career interest, each student will select a career pathway that emphasizes both academics and hands-on experiences. These experiences are designed to promote readiness for and success in science, technology, engineering, and mathematics.

The STEM for LIFE Academy will provide training opportunities for school counselors and teachers. Career awareness sessions for parents and community members will be an integral component. It is the philosophy of the Academy that a team effort is essential to the success of this program and that ongoing communication is key to its sustainability.

Students will enter the Academy in sixth grade and progress in their selected pathways through twelfth grade. In high school, students will have opportunities for dual enrollment courses through Southwest Virginia Community College and the University of Virginia's College at Wise. Initially, the Academy programs will be open to students in Russell County only. However, the long-range goal is to expand the Academy to

surrounding school divisions so that students in all of southwest Virginia have access to STEM opportunities.

Rationale

In order to provide a work force of problem solvers, innovators, inventors, and committed workers, a STEM curriculum must be developed for every student in grades K-12. The Governor's Career and Technical Academy, STEM for LIFE, will feature a well-articulated curriculum for grades 6-12 in two career clusters: Science, Technology, Engineering, and Mathematics; and Information Technology. The STEM for LIFE Academy will be built on a foundation of courses, programs, business partnerships, and cooperative work with Southwest Virginia Community College (SVCC) and the University of Virginia's College at Wise, a partnership currently existing in Russell County.

Two information technology companies in Russell County, CGI-AMS, Inc., and Northrop Grumman, are in the process of hiring four hundred workers each. These two companies recently located to Russell County. Combined with other more established local businesses such as Alcoa Wheels Industry, International Automotive Components (IAC), Appalachian Electric Power Company, and AT and T, the local schools have begun to examine the curriculum in the area of Information Technology to determine if it meets the needs of future employers in the business and industry sectors in Russell County. With the help of business partners, the community college, and the University of Virginia's College at Wise, vital changes are already taking place. With input from its partners, Russell County Schools will strengthen the curriculum in grades 6-12 and offer

all students the opportunity to participate in classes that will enable them to compete for jobs in a global economy.

The three career pathways offered by the STEM for LIFE Academy (Science and Mathematics; Engineering and Technology; and Information Support and Services) have been identified by the Virginia Economic Development Partnership as strategic growth areas for Virginia. Virginia has one of the largest concentrations of high technology industries in the nation, with over 175,000 people in 6,100 establishments.

The Virginia Career Prospects Web site provides employment projections in Virginia through 2012 (<http://www.careerprospects.org>):

Virginia Career Prospects in Virginia Through 2012
Table 1

Type of Position Needed	Positions by 2012	Annual Average Positions Open
Multimedia Artists and Animators	280	9
Graphic Designers	5,218	16
Desktop Publishers	1,137	45
Prepress Technicians and Workers	2,199	55
Computer Specialists	199,350	7,941
Computer Information Scientists, Researchers	1,805	43
Computer Programmers	28,671	1,115
Data Base Administrators	4,538	121
Network and Computer Systems Administrators	18,451	754
Network Systems and Data Computer Analysts	9,308	445
Computer Operators	4,014	97

Many of these positions are currently available in Russell County. During the next five to ten years, there is an anticipated increase in retirements in many of the fields mentioned.

Growth Occupations for Russell County (Virginia Employment Commission, 2006)
Table 2

Type of Position Needed	Projected Number by 2014
Network Computer Systems Administrators	36
Computer Information Systems Management	37
Market Research Analysts	28

New Hires	Projected Number by 2014
Manufacturing	5,001
Information	1,353
Professional and Technical	2,273

Table 2 shows growth occupations for Russell County. As business and industry move into the region and bring with them the need for a highly-skilled work force, the STEM for LIFE Governor's Academy will provide opportunities for southwest Virginia students to acquire skills for today's jobs and skills that can be applied to jobs of the future. Through our three pathways of Engineering and Technology, Science and Mathematics, and Information Support and Services, we will meet the needs identified.

Program Description

All STEM for LIFE career and technical education (CTE) courses will include strong mathematics, science, and technology skills. In addition, activities-based instruction, project-based learning, and problem solving will be included in each academic course. Mathematics and science teachers in the sixth and seventh grades will participate in workshops in spring 2008 to learn how to integrate hands-on, experience-based learning into the Standards of Learning (SOL). Eighth-grade students will continue their study of mathematics with Algebra I. Since much of the Academy is focused on preparing middle school students to enroll in more career and technical

courses, primary core courses will be taught in conjunction with career and technical preparation courses.

Grades 6-8

Middle school students will be offered a range of opportunities to guide them through exploratory programs including site visits to local businesses, development of career portfolios, and presentations of career choices. Using the Kuder career assessment each student will be assessed for areas of interest, explore jobs that align with identified areas of interest, and complete a job interview planner. Parents and teachers will be involved in the process. Students will have opportunities to modify their Kuder job search from sixth through twelfth grades. Students, along with their parents, will develop individual plans that will be a culmination of additions, modifications, and deletions reflecting changes made from the sixth grade through postsecondary education planning.

A more thorough look at career pathways will be emphasized in the eighth grade when students will identify a pathway and select high school courses that will help them meet their career goals. Additionally, all eighth-grade students will be required to take Algebra I.

Program Details for Grades 6-8

The STEM for LIFE Governor's Academy will build on current programs and resources to provide enhanced or additional offerings in STEM education. These enhancements and additional offerings will prepare students for different career pathways using a multi-step design of curriculum and activities.

Implementation of a strong foundation based on a hands-on science and mathematics curriculum for middle school students will comprise the first step. The Gateway to Technology curriculum, which is the middle school component of Project Lead the Way (PLTW), will be introduced in every sixth- and seventh-grade class in Russell County Public Schools. The Gateway to Technology program consists of five independent units taught in conjunction with a rigorous academic curriculum. The five units are Design and Modeling, The Magic of Electrons, The Science of Technology, Automation and Robotics, and Flight and Space.

The first two units, Design and Modeling and The Magic of Electrons, will be taught in sixth grade for two nine-week periods. Keyboarding will be taught the other two nine-week periods. In addition, sixth-grade mathematics and science teachers will incorporate practices from Reading in the Content area literature. Sixth- and seventh-grade science and mathematics teachers will receive inservice training on how to use hands-on activities and manipulatives in mathematics and science instruction.

The last three classes in Gateway to Technology (The Science of Technology, Automation and Robotics, and Flight and Space) will be taught in seventh grade for three nine-week periods. The fourth nine-week period will be used to reinforce keyboarding, problem-solving skills, and test-taking strategies. Intensive mathematics, science, civics and economics, and reading skills will be taught along with the Gateway curriculum.

Eighth-grade students will then be ready to participate in Algebra I, World Geography, Physical Science, English, and their choice of foreign language, band, choir, or Computer Information Systems. Taking Algebra I in grade eight will provide a foundation in mathematics for higher level mathematics courses and prepare students for

dual enrollment and Advanced Placement classes during the sophomore, junior, and senior years in high school.

The middle school guidance program will be redesigned to better prepare middle school students to understand job opportunities in Russell County and the surrounding area. The guidance program will be prepared to advise on secondary courses and postsecondary training required to obtain a job in the Information Technology and STEM career clusters. Restructuring of middle school guidance will include:

- a. developing career fairs, obtaining speakers, and planning visits to businesses, community colleges, and other partners on a bi-weekly basis for sixth-, seventh-, and eighth-grade students;
- b. developing brochures for the three identified pathways (Science and Mathematics, Engineering and Technology, Information Support and Services) targeting parents and students;
- c. developing special “exchange groups” for middle school students to have discussions with high school and college students in the targeted pathways;
- d. providing a continuous job counseling service in the eighth and ninth grades that will continue through the high school years;
- e. providing group and individual counseling for students with their parents about job opportunities, education requirements for specific jobs, and opportunities in postsecondary education and training; and
- f. providing a transition program for students in seventh grade to eighth grade or from eighth grade to ninth grade, depending upon the structure of the feeder schools to the three high schools. The transition program will address course selection, activities, clubs, athletics, and the social aspect of high school; and interpreting the results of the Kuder career assessment for student and their parents.

Professional development and training for middle school teachers and guidance counselors is essential to the success of the STEM for LIFE Academy. Training will take place in three areas:

1. All sixth- and seventh-grade teachers will participate in professional development in the delivery of mathematics and science instruction to facilitate more hands-on, inquiry-based activities and project-based learning. The professional development will be coordinated and supervised by the department of instruction at Southwest Virginia Community College.

2. Middle school guidance counselors will be trained to use the Kuder career assessment tool to help students plan future courses as they enter grades nine through twelve. Counselors will learn how to interpret career assessment information and translate that information into workable plans of study for students and their parents. Middle school and high school guidance counselors will meet to coordinate the career assessment program, plan brochures to articulate the pathways students will take in order to reach their goals, and plan a transition program from middle to high school.

3. Technology teachers will receive training on the Gateway to Technology courses. During the summer of 2008 they will attend Project Lead the Way training at the University of Kentucky.

See Appendix A for a timeline of professional development for the STEM for LIFE Governor's Academy.

During the summer of 2008, the STEM for LIFE Governor's Academy will offer a program for upcoming seventh-, eighth-, and ninth-grade students. Students will be selected for participation based on interest and teacher referral. The summer program will be held for three weeks, July 7 through July 25. During the program, students will participate in activities from two of the following areas: Engineering, Information Technology, Advanced Science Research, and Mathematical Design. Teachers for the

summer academy will be selected on the basis of their creativity and background knowledge to design and teach these courses. Students will hear speakers, participate in field trips to the partner organizations, and design and carryout a project of their own.

Grades 9-12

High school students will have options as they select from the three pathways provided through the STEM for LIFE Governor’s Academy.

Guidance will continue to be an important part of the high school program as counselors help students and their parents align interests and anticipated career plans with high school coursework that leads to certifications, provides dual enrollment, and prepares for two-year and four-year postsecondary degrees.

Higher education will play a large role in high school as students participate in dual enrollment courses and the beginning of programs that may be completed on a postsecondary level. Representatives from Southwest Virginia Community College and the University of Virginia’s College at Wise will counsel and mentor students as they progress through the high school portion of the Academy.

Program Details for Grades 9-12

After completing eighth grade, all interested students will be invited to apply for STEM for LIFE Governor’s Career and Technical Academy status in one of the three pathways. Acceptance into the program will be based on three criteria: 1) student academic data; 2) recommendations from at least two teachers in the pathway the student has chosen; and 3) evidence of program interest (Kuder career assessments and interest inventories). A selection committee for each pathway will be established at each school.

Each pathway includes opportunities for dual enrollment or Advanced Placement (AP) credit through Southwest Virginia Community College, the University of Virginia's College at Wise, Virtual Virginia (for AP only), and the Commonwealth College Course Collaborative (CCCC).

The following courses are taught for dual enrollment through Southwest Virginia Community College:

- Biology II; Earth Science II; Chemistry II;
- Informational Technology including Web Design, JAVA Programming and Software Design, IT Essentials, Cisco I, II, III, and IV, and Marketing. Oracle will be added during the 2009-2010 school year; and
- Calculus, Trigonometry, and Mathematical Analysis.

Related to the three selected pathways, other classes for dual enrollment will be added to the curriculum during the next two years. They include:

- *Applied Calculus I, II;
- *Statistics;
- *General College Physics I, II;
- *Environmental Problems;
- *Environmental Laws;
- *Environmental Science;
- *Principles of Economics I, II;
- *Introduction to Engineering;
- *Introduction to Network Concepts;
- *Database Fundamentals;
- *Structured Query Language;
- *Telecommunications Management;
- *Computer Technology;
- *Computer Drafting and Design; and
- *Software Configuration and Diagnostics.

All students with the prerequisites will be given the opportunity to enroll in these courses.

Using the Internet and a connecting software program, dual enrollment classes taught through the Technology Development Center will be received by each high school and

the Russell County Career and Technology Center. A list of dual enrollment classes, which will be taught at the central location, will be developed by high school principals and mathematics, science, computer information, business, and technology teachers in spring 2008.

Some of the courses delivered at the Russell County Career and Technology Center offer certifications and a verified credit with the National Center for Construction Education and Research (NCCER). They include pre-engineering classes, Digital Electronics, Computer Integrated Manufacturing, and Engineering Design and Development.

Students graduating from the STEM for LIFE Academy will meet the requirements to qualify for Technical or Advanced Technical diplomas.

Virginia's Workplace Readiness Skills will be incorporated into the curriculum at each grade level for academic and CTE courses. Workshops that address Virginia's Workplace Readiness Skills will be held for teachers at the Russell County Career and Technical Center for teachers of sixth-, seventh-, and eighth-grade core curricula, and for ninth- through twelfth-grade English teachers. Reading to learn practices will also be included in each CTE course aligned with the required English course at each grade.

Workplace Readiness Skills are taught in all CTE classes at the Russell County Career and Technology Center. A job specialist with the Jobs for Virginia Graduates program currently works with identified seniors who may be at risk of not graduating to ensure that these students have workplace readiness skills. Another job specialist will be added to the faculty to assist students beginning at the tenth-grade level with choosing a career and a postsecondary goal. There are currently 40 students in the Jobs for Virginia

class, and more students will be identified for the 2008-2009 school year. In addition, a career coach from SWVCC will work with all high school students in the academy.

Southwest Virginia Community College personnel, including the Dean of the Information Technology Division, Dean of the Engineering Division, Dean of the Mathematics and Science Division, and the Vice-President for Instruction, have met and will continue to meet at least five more times throughout the 2008-2009 school year with Russell County Public Schools' teachers, principals, and central office personnel to determine a seamless sequence of courses at the community college level after graduation from Russell County high schools. A brochure is being developed for parents and students that lists the courses that lead to a two-year degree in Information Technology.

If a student fails a pathway course at any time while enrolled in the Academy, the student will be allowed to retake the course and continue pursuing the pathway. If a student consistently fails courses related to the Academy, the student has the option of entering another pathway or completing a program of studies for a standard or advanced studies diploma. (See pages 21 and 22 for complete Academy requirements.)

Guidance counselors at the high school level will plan with students, coordinate with middle school guidance counselors, and talk with parents in small groups and one-on-one to plan for postsecondary education and careers. Links on the school division Web site and the individual school sites will list dual enrollment courses and programs that offer certification and verified credits. The links will also have information about the pathways leading to additional educational opportunities and counseling services offered by each school to help students and their parents determine educational paths.

Russell County Public Schools is working to offer additional certifications for students through the National Occupational Competency Testing Institute (NOCTI) in Computer Networking Fundamentals, Computer Programming, Computer Technology, and pre-engineering.

Certiport certification will be offered in the areas of Business Information Technology (Microsoft Office Specialist: Word, Excel, PowerPoint), Internet and Computing Core Certification (IC3), JAVA computer programming, and CISCO.

Program Goals and Performance Measures

The goals and performance measures of the STEM for LIFE Academy are set forth in the following:

1. Improve academic achievement of Academy students.

- a. Increase the number of students taking CTE classes by 20 students in the STEM and information technology clusters the first year, and by 20 students overall in the following years until 2010-2011.

Chart 1a

Subject	2007-2008 Enrollment	2008-2009 Enrollment	2009-2010 Enrollment	2010-2011 Enrollment
Computer Systems Technology	29	33	37	40
Computer Network Hardware Operations	16	20	24	28
Desktop Publishing	16	17	18	19
Digital Input Technology	50	53	55	55
Engineering Design	9	14	18	25
JAVA (Programming)	30	34	35	36

Subject	2007-2008 Enrollment	2008-2009 Enrollment	2009-2010 Enrollment	2010-2011 Enrollment
Principles of Engineering	19	21	23	26
Technology Foundations	53	55	57	58

- b. Increase the achievement of students in CTE classes, with the percentage of students making A's and B's in the identified courses increasing by 10 percent the first year, and by 5 percent in the following years until 2010-2011.

Chart 1b

Subject	Students with A's and B's in 2007-2008 Baseline	Number of Students with A's and B's in 2008-2009 (10 percent increase)	Number of Students with A's and B's in 2009-2010 (5 percent increase)	Number of Students with A's and B's in 2010-2011 (5 percent increase)
Computer Systems Technology	24	26	28	30
Computer Network Hardware Operations	16	18	19	20
Desktop Publishing	16	17	18	19
Digital Input Technology	44	48	50	52
Engineering Design	4	10	11	12
JAVA (Programming)	30	33	35	37
Principles of Engineering	12	14	16	18
Technology Foundations	36	40	42	44

- c. Increase the use of hands-on experiential delivery and instructional techniques used in CTE classes, as determined by a survey of teachers and students, and by focus group interviews in each school.

2. Increase completion of dual enrollment courses.

- a. Offer at least three more dual enrollment classes in the pre-engineering and/or technology and/or science/mathematics areas during the 2008-2009 school year and an additional two more courses each year thereafter until 2010-2011;

Chart 2a

Course Prefix and Number	Class Name	Location	Credits	Added/Year Location
DRF 202/203	Computer Drafting and Design	Lebanon	8	* 2009-2010 Castlewood/Honaker
EGR 115/120	Engineering Graphics and Introduction to Engineering	Currently not being offered	8	*2010-2011 Lebanon
ETR 166/167	Computer Technology	Honaker	8	* 2008-2009 Castlewood
ETR 166/167	Computer Technology	Lebanon	8	Currently taught
ITD 110/111	Web Page Design	Castlewood	8	*2010-2011 Lebanon
ITD 110/111	Web Page Design	Honaker	8	Currently taught
ITP 100/101	Information Technology Programming	Honaker	6	* 2008-2009 Castlewood
ITP 100/101	Information Technology Programming	Lebanon	6	Currently taught
TEL 150/151	Telecommunications Management	Lebanon	8	Currently taught
TEL 150/151	Telecommunications Management	Honaker	8	* 2008-2009 Castlewood

Chart 2b

Course Prefix and Number	Class Name	Location	Credits	Added/Year Location
BIO 101/102 w/Lab	Biology	Castlewood	8	* 2008-2009 Lebanon/Honaker
CHM 111/112 W/Lab	Chemistry	Castlewood	8	* 2008-2009 Lebanon/Honaker
ACC 211/212 w/Lab	Accounting	Castlewood	8	* 2009-2010 Lebanon
MKT 100/101	Marketing	Lebanon	6	*2010-2011 Honaker/Lebanon
MTH 163/164	Pre-Calculus	Lebanon	6	*2009-2010 Honaker
MTH 163/164	Pre-Calculus	Castlewood	6	Currently taught

- b. Offer at least four more dual enrollment classes in the areas of mathematics, science and related business computer offerings, and an additional two more courses each year thereafter until 2010-2012.
- c. Schedule meetings between the guidance counselors and those identified students in the three pathways at least four times a year to ensure parent participation, and to aid students with any classroom difficulties which they may experience. Documentation will take the form of logs completed by each guidance counselor detailing student, parent, and teacher meetings.

3. Provide work place readiness experiences for students through strong partnerships with businesses.

- a. Persons from businesses and colleges will mentor each identified student considered at-risk in the three identified pathways at the middle and high school level;
- b. All classes identified in the three pathways will include project-based learning activities. Projects will be displayed at various businesses, stores, and service organizations beginning with the three-week summer programs for sixth-, seventh-, and eighth-grade students during the summer of 2008.
- c. All students in the sixth-, seventh-, and eighth-grades must choose at least one service-learning project in which to participate during the 2008-2009 school year. Of particular focus will be the projects in which business and industry partners participate. Students will be encouraged to complete service learning activities with local partners and as a part of their classes.
- d. Several local businesses have indicated that they will offer job shadowing for students in the junior and senior years, serve as speakers at parent, student, community meetings or mentor middle and high school students.
- e. Business, industry, colleges, and work force development entities will present information to guidance counselors regarding job opportunities or prospects which are expected to be available nationally, statewide, regionally, and countywide for the next 2-5 years, next 6-10 years, and next 11-15 years.

4. Increase high school graduation rates.

The cohort graduation rate will increase overall in the county by 4 percent during the 2008-2009 school year and 2 percent in each of the school years thereafter until 2010-2011.

Graduation Rates (in percent)
Chart 4a

2006-2007	75
2007-2008 (projected 2 percent increase)	77
2008-2009	79
2009-2010	81
2010-2011	83

5. Reduce dropout rates.

The cohort dropout rate will decline countywide by 0.25 percent in the 2008-2009 school year and by 0.10 percent in each of the school years thereafter until 2010-2011. The decreases are based on the data from the 2006-2007 baseline year.

Dropout Rates (in percent)
Chart 5a.

2006-2007	1.77
2007-2008 (projected)	1.77
2008-2009	1.52
2009-2010	1.42
2010-2011	1.32

6. Increase enrollment and retention in postsecondary education.

The increase in enrollment over the 2007-2008 baseline in postsecondary education with the 2008-2009 graduating seniors will be 4 percent for the 2008-2009 school year, and by 4 percent in the following years thereafter until 2010-2011. The rate may include two-year college, four-year college, or technical training beyond secondary school.

Postsecondary Enrollment
Chart 6a (in percent)

Postsecondary Type	2007-2008	2008-2009	2009-2010	2010-2011
Two-Year	45	49	53	57
Four-Year	19	23	27	31
Technical Training	3	7	11	15

7. Increase the proportion of students completing a college and work place ready curriculum in high school.

Increase the percentage of students graduating with a college and work place curriculum over the baseline data from 2007-2008 by 6 percent during the school year 2008-2009 and by 4 percent in the school years thereafter until 2010-2011.

Diplomas Received
Chart 7a (in percent)

Diploma Type	2007-2008	2008-2009	2009-2010	2010-2011
Advanced Study	36	42	46	50
Standard Diploma	47	53	57	61

8. Reduce the proportion of students requiring remediation in college.

Reduce the percentage of students requiring remediation in the local colleges by 2 percent for the 2008-2009 school year, and by 2 percent for the following years thereafter until 2010-2011. The decrease is relative to the 2006-2007 year baseline data.

Remediation Rates
Chart 8a (in percent)

2007-2008	2008-2009	2009-2010	2010-2011
35	33	31	29

9. Increase the number of industry certifications awarded to high school students.

Increase the number of industry certifications awarded by 4 percent in the year 2008-2009 and by 3 percent in years thereafter until 2010-2011. The increase is over the baseline year data collected in 2006-2007.

Industry Certifications
Chart 9a

2007-2008	2008-2009	2009-2010	2010-2011
59	63	66	69

10. Increase the number of graduates employed in high-wage, high-demand, and high-skill careers.

The number of graduates employed in high-wage, high-demand, and high-skill careers will be collected on a yearly basis and compared yearly to determine the percent increase of these graduates from year to year. The number of graduates employed in the 2008-2009 school year will be 15.

Data will be maintained yearly to track students from sixth grade to postsecondary choices. Students enrolled in sixth grade during the 2008-2009

school year will receive the full benefits of the STEM for LIFE Academy by the time they graduate in the year 2014-2015. Therefore, new performance measures will be written during the summer of 2011 to show anticipated performance for future years.

Beginning with the 2010-2011 school year, dual enrollment classes at the central location will be offered to students in surrounding high schools in Dickenson, Tazewell, Scott, and Lee counties. Based on input from the STEM for LIFE Advisory Council, a variety of courses will be offered for high schools located in the aforementioned counties.

All students will be enrolled in a full-day program. All courses will be taught by certified, trained teachers. All Russell County high schools feature a seven-period day. Some courses may be taught at the Russell County Career and Technical Center or at the University of Virginia's College at Wise Center for Technology Development through distance learning.

Requirements for Program Completion

All of the identified pathways allow students to transfer courses to Southwest Virginia Community College to earn an associate degree. Courses in the STEM for LIFE Academy will also transfer to the University of Virginia's College at Wise to begin studies in a chosen field for a four-year degree.

To graduate from the STEM for LIFE Governor's Academy, students must meet the following requirements:

- Meet the requirements for the Commonwealth Scholars Program;
- Meet the requirements for a standard or advanced technical diploma;
- Complete required coursework for the Science and Mathematics, Engineering and Technology, or Information Support and Services pathways as listed in Appendices B, C, and D;

- Complete a minimum of 15 hours of college credit through dual enrollment;
- Complete a minimum of one semester of job shadowing or internship in a local business or industry; and
- Complete at least one industry certification related to the identified program of study.

Operating funds and facilities within the Russell County School System are available to support the Governor’s Career and Technical Academy and are adequate to meet the needs of the program.

Materials, equipment, and professional development will be provided to teachers in order for them to accomplish Academy goals and objectives.

Evidence of Internal Evaluation

Evidence for an internal evaluation process to effect program improvement will be collected and analyzed via several different avenues.

Quarterly meetings will be held with the school division superintendent, academy director, partners, and advisory council to ensure that the goals of the Academy are being met. Formative in nature, the meetings will focus on adherence to the established timeline for the Academy, consideration of recommendations by teachers, other instructional staff, students, parents, and community members. At the meetings the group will review all current evidence of student performance. Documentation will be maintained through agenda, sign-in sheets, and recorded minutes.

Monthly reflection meetings will be held at the Russell County School Board Office with all Academy instructional staff to address Academy accomplishments and to discuss any recommendations for program changes. These meetings will provide a

forum for teachers and other instructional staff to share concerns. Documentation of these meetings will be maintained through agenda, sign-in sheets, and recorded minutes.

The Academy is a partnership. Therefore, feedback from each group will be essential to the success of the Academy. Monthly staff meetings, quarterly meetings with parents and community members, and quarterly meetings with the advisory council and planning committee will provide essential input, address concerns, and identify potential resources. A student advisory council will be established to give students an opportunity to express ideas about the Academy. Student advisory council membership will include student representatives from each grade and pathway. All meetings will be documented with agenda, sign-in sheets, and recorded minutes.

The STEM for LIFE Governor's Academy will adhere to the Career and Technical Education Exemplary Standards evaluation criteria.

The Academy director will submit an annual report to the Department of Education. Using 2007 information, the Academy will establish baseline data that will be the beginning of a longitudinal study of students from sixth grade through graduation from high school. In addition, data will be collected regarding student selection and completion of programs after high school graduation, including technical and certificate programs, associate degrees, and baccalaureate degrees. Data for the report will include individual Standards of Learning scores, information about student selection of courses in STEM and instructional technology, evidence of student participation in and completion of service projects, and documentation of student involvement in job shadowing, and mentoring.

At the end of the first year of the Academy, the partners, school superintendent,

and Academy director will identify the accomplishments of the Academy. The report, submitted to the Virginia Department of Education, will be both qualitative and quantitative and include a report of the strengths, areas of need, and anticipated modifications. This will be a time also for reflection and regrouping and to make decisions about continued elements of the STEM for LIFE Academy.

Partnerships

Business and industry partners, higher education, and work force and economic development entities have been working with Russell County on the planning committee and advisory council of each area of the STEM for LIFE Academy. Planning committee meetings are being held monthly, with the first meeting held in December of 2007. One advisory council meeting has been held, and another one is planned for May of 2008. See Appendices E and F for a complete list of planning committee and advisory council members. In addition, all school guidance counselors and principals comprise a secondary advisory council to provide feedback and input on all aspects of Academy planning and implementation.

Business, industry, and economic development partners have committed to many work-based experiences for students with training beyond the classroom. The Memorandum of Understanding identifies the areas in which each partner plans to offer expertise. See Appendix G.

Student Recruitment, Selection Criteria, and Admissions

All sixth- and seventh-grade students in Russell County will participate in the Gateway to Technology sequence and keyboarding classes. In eighth grade all students will participate in Algebra I and Physical Science. Students choosing the Information Support and Services Pathway will enroll in Computer Information Systems (CIS 1). These courses will prepare all Russell County middle school students with the foundation needed to enter a STEM or Information Technology pathway in high school if they desire.

Students who wish to enter the pathways of Science and Mathematics, Engineering and Technology, and Information Support and Services in high school will need strong English, mathematics, and science skills. A student must complete an application at the beginning of eighth grade to begin the selected pathway. A failing grade at the end of a school year will cause a student to be on probation. The student will be monitored during the following school year to determine if the chosen pathway and course of study is appropriate.

The Academy enrollment will begin with 284 sixth graders in 2008-2009, 284 seventh graders in 2009-2010, 319 eighth graders in 2010-2011, and 425 high school students taking dual enrollment courses from 2008 through 2012.

Code of Student Conduct and Attendance

Sixth-, seventh-, and eighth-grade students are required to adhere to the Russell County Public Schools Code of Student Conduct and attendance policy.

Transportation

Transportation will be provided by the Russell County Public School System for all activities and classes for all Academy students. Transportation will be in compliance with all applicable federal and state regulations.

Staff Recruitment, Selection, and Assignment

In addition to meeting Virginia licensure requirements, staff members will receive training to teach the Gateway to Technology units.

Staff members who teach any of the courses within the three pathways will meet the Virginia licensure requirements and postsecondary faculty qualifications in order to teach the dual enrollment classes. Staff members teaching industry-specific classes must have industry-specific education with training and experience, including industry certification.

Guidance counselors who will work with students administering career assessments will meet Virginia licensure requirements for counseling in Virginia public schools or be working toward their certification.

Staff Development

Russell County Public Schools will provide appropriate staff training for all participating middle and high school teachers for the Gateway to Technology units, Workplace Readiness Skills, and hands-on mathematics and science activities.

Russell County Public Schools will also provide appropriate staff training for all middle and high school guidance counselors in the use and interpretation of the Kuder career assessment tool, identification of regional and statewide career

opportunities, and training in how to conduct student, teacher, parent, and community awareness sessions regarding the STEM for LIFE Academy and the opportunities it will afford students.

All participating teachers and guidance counselors will meet once a month for the purpose of updating, planning, and exchanging ideas and strategies.

Staff Evaluation

All Academy staff will be evaluated according to Russell County policies.

Parent, Student, and Community Involvement

Preparation for entering the STEM for LIFE Governor's Academy will begin in the sixth grade. Students, parents, teachers, and guidance counselors will work collaboratively by beginning career assessments in the fall of 2008 with sixth- and seventh-grade students. Together they will complete career interest inventories, prepare academic and career plans, review multiple postsecondary pathways and steps required to pursue them, participate in career assessments to identify student strengths, weaknesses and interests and discuss available diplomas, seals, and other recognitions.

Documentation of Insurance, Budget, and Other Fiscal Information

Insurance for all students including out-of-county students attending any programs sponsored by the Russell County Public School System will be covered by insurance offered by the Virginia Association of Counties Organization Insurance Programs. The insurance is a supplemental accidental injury insurance policy which covers students at school, on field trips, during other school-sponsored activities and on school buses.

Russell County Public Schools will be the fiscal agent for the STEM for LIFE Governor's Academy. With prior experience as fiscal agent for federal, state, and local grants, Russell County Public Schools is willing and capable of serving in this capacity. See Appendix F.

Operating funds and facilities within the Russell County Public School System are available to support the Governor's Career and Technical Academy and are adequate to meet the needs of the program.

Materials, equipment, and professional development will be provided to the teachers in order for them to accomplish the program goals and objectives of the Academy.

Implementation Budget Narrative

A. Direct Costs

- | | | |
|-----------|---|-----------------|
| 1. | <u>Personnel</u> | \$41,000 |
| | A total of \$41,000 for salaries for Gateway to Technology teachers and a half-time project director. | |
| 2. | <u>Employee Benefits</u> | \$6,500 |
| | Benefits for three full-time technology teachers and a half-time project director. (Amount includes FICA, Group Life Insurance, Social Security, Medicare, and Health Benefits) | |
| 3. | <u>Purchased/Contracted Services</u> | \$15,060 |
| | Cost for Gateway to Technology software for 6 schools; cost for iLinc Suite to actively teach classes from the Southwest Technology Development Center and transmit to all high schools in Russell County. (\$5,760 for iLinc; \$9,300 for Gateway software). | |
| 4. | <u>Internal Services</u> | \$0 |

5. <u>Staff Development</u>	\$16,000
Stipends for teachers for training during after-school hours - \$200 x 10 four-hour training sessions for 8 teachers.	
6. <u>Summer Component</u>	\$20,600
8 teachers for three weeks @ \$100 per day	\$12,000
1 Nutrition/Instructional Assistant @ \$10 per hour	\$600
Snacks for Students in Summer Program	\$2,000
Field Trips – Drivers and Fuel	\$1,000
Stipends for Students Helping with Program	\$3,000
7. <u>Travel</u>	\$0
8. <u>Contractual Services</u>	\$0
9. <u>Materials and Supplies</u>	\$840
Materials and supplies for sixth- and seventh-grade mathematics, science, or English hands-on activities.	
10. <u>Equipment</u>	\$0
11. <u>Facilities</u>	\$0
B. <u>Indirect Costs</u>	\$0
Total	\$100,000

APPENDIX A:
PROFESSIONAL DEVELOPMENT TIMELINE

**PROFESSIONAL DEVELOPMENT
TIMELINE**

Fall 2007 through Fall 2009

Participants	Activity Planned or Implemented	Date	Status
Middle and high school principals, community college faculty and leaders, four-year college faculty and leaders, university faculty and leaders, legislators, and business and industry leaders	STEM Awareness Meeting – What is STEM? Who is Involved? What is your Role?	November 2007 December 2007	Completed
Russell County Public Schools guidance counselors	STEM Awareness Meeting –	December 19, 2007	Completed
Sixth- and seventh-grade mathematics and science teachers and guidance counselors	STEM Awareness Meeting	January 7, 2008	Completed
Guidance counselors	Planning meetings; parent meetings; visits to college campus; career fair	January 16, 2008	Completed
Guidance counselors	Training on Kuder Assessment tool in a.m./Create pathway brochures in p.m.	January 30, 2008	Completed
STEM for LIFE Planning Committee and guidance counselors	Discuss available jobs and education needed. Discussion of postsecondary employment	February 13, 2008	Completed
Guidance counselors	Tour of CGI-AMS, Inc. facility; discussion by CGI-AMS, Inc. representatives regarding available jobs	February 13, 2008	Completed
Teachers, guidance counselors, and principals	Visit to observe implementation of Gateway to Technology	February 13 and 19, 2008	Completed

Participants	Activity Planned or Implemented	Date	Status
Guidance counselors	Tour of Northrop Grumman facility; presentation by Jim Tiscornia regarding available jobs and education needed for employment	February 20, 2008	Completed
Sixth-grade mathematics teachers	Instruction by resident engineer in PLTW in teaching Virginia SOL	March 4, 11 and 18, 2008	Completed
Sixth-grade science teachers	Instruction by resident engineer in PLTW in teaching Virginia SOL	March 18, April 1 and 8, 2008	Completed
Guidance counselors, principals, and parents	Light dinner followed by discussion of STEM jobs available locally, regionally, and statewide, education required, and postsecondary opportunities	March 3, 4, 12 and 13, 2008	Completed
High school mathematics, science, and information technology teachers and community college representatives	Meeting to determine courses to meet pathway requirements	April 15, 2008	Completed
Twelfth-grade English teachers	Inservice on Virginia's Workplace Readiness Skills	May 13 and 20, 2008	To Be Completed
CTE teachers	Inservice on Virginia's Workplace Readiness Skills	May 6 and 7, 2008	To Be Completed
Teachers selected to participate in training for Gateway to Technology classes in the middle grades	Training on Gateway to Technology	University of Kentucky – June 15 – 27, 2008	To Be Completed
Seventh-grade mathematics teachers	Instruction in the use of hands-on mathematics projects (SOL related) by resident engineer from PLTW	Fall 2008	To Be Completed

Participants	Activity Planned or Implemented	Date	Status
Seventh-grade science teachers	Hands-on training on how to teach science projects to match SOL	Fall 2008	To Be Completed
Parents of Russell County middle and high students, teachers, and guidance counselors	Meetings to discuss progress of program, students, jobs, and education required	Fall 2008	To Be Completed
Eighth-grade Algebra I teachers	Training on hands-on strategies for teaching Algebra	Winter 2008	To Be Completed
Information technology personnel	Plan course and syllabus for eighth-grade information technology course	Winter 2008	To Be Completed
Information technology teachers	Training to teach IT course in eighth grade	Winter 2008	To Be Completed
Guidance counselors	Inservice for guidance counselors to conduct surveys with teachers and students	Winter 2008	To Be Completed
Guidance counselors	Training on how to work with parents in helping students choose a career	Winter 2008	To Be Completed
High school and middle school guidance counselors	Meetings to exchange ideas on transition, career fairs, and student classes	Fall 2008 Winter 2008 Spring 2009	To Be Completed
Personnel teaching classes on Interactive Internet	Training on how to use Interactive Internet	Spring 2009	To Be Completed
Personnel involved in delivery of STEM for LIFE Academy, planning committee, and advisory council	Professional development and meetings will be scheduled throughout the school year as needs develop	As needed	To Be Completed

**APPENDIX B:
SCIENCE AND MATHEMATICS
PROGRAM OF STUDIES**



Career Cluster: Science, Technology, Engineering and Mathematics
Career Pathway: Science and Mathematics



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)		Physical Education <i>Gateway to Technology: Design and Modeling and The Magic of Electrons</i> (2 nine-week sessions)
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Economics	Keyboarding (1 nine-week session)		Physical Education <i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space</i> (3 nine-week sessions)
	8	Language Arts 8	Algebra I	Physical Science	World Geography			Physical Education Foreign Language Introduction to Careers

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology Laboratory Practices and Biology Laboratory	World History I or World History II	Physical Education	Foreign Language	IT Laboratory Practices Biology Laboratory	<ul style="list-style-type: none"> • Analytical Chemist • Anthropologist • Applied Mathematician • Archeologist • Astronomer • Astrophysicist • Atmospheric Scientist • Biologist • Chemist • Ecologist • Economist • Environmental Scientist • Geneticist • Geologist • Geophysicist • Marine Scientist • Mathematics Teacher • Mathematician • Meteorologist • Nanobiologist • Nuclear Chemist/Technician • Physicist • Programmer • Quality-Control Scientist • Research Technician • Science Teacher • Scientist • Statistician • Zoologist
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/I or II Geography 2221	Physical Education	Foreign Language	Information Technology Applications Chemistry Laboratory	

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		Related Careers
	11	English 11 1150	Algebra II 3135 Computer Mathematics Geometry	Chemistry I and II (DE)	US/VA History 2360		Foreign Language Engineering Design Oracle SQL	Physics Laboratory Scientific Research Science and Mathematics in the Real World
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160 Applied Calculus	Physics OR Principles of Technology I (9811-Grades 10 or 11) and Principles of Technology II (9812-Grade 12)	US/VA Gov 2440			Scientific Research Advanced Applications of Science and Mathematics Using Science and Mathematics to Solve Problems Technical Aspects of Science and Mathematics

**APPENDIX C:
ENGINEERING AND TECHNOLOGY
PROGRAM OF STUDIES**



Career Cluster: Science, Technology, Engineering and Mathematics
Career Pathway: Engineering and Technology



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)	Physical Education	<i>Gateway to Technology: Design and Modeling and The Magic of Electrons (2 nine-week sessions)</i>
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Economics	Keyboarding (1 nine-week)	Physical Education	<i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space (3 nine-week sessions)</i>
	8	Language Arts 8	Algebra I	Physical Science	World Geography		Physical Education	Foreign Language Introduction to Engineering Design

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching,</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology	World History I or World History II	Physical Education	Foreign Language	Principals of Engineering	<ul style="list-style-type: none"> • Animator • Audio-Video Engineer • Digital Media Designer • Graphic Designer • Media Specialist • Multimedia Author • Multimedia Developer • Multimedia Specialist • Page Developer • Producer • Production Assistant • Site Developer • Streaming Media Specialist • Virtual Reality Specialist • Web Architect/Designer • Web Designer • Web Development Administrator • Web Producer • Webmaster
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/ Geography 2221	Physical Education	Foreign Language	Computer Integrated Manufacturing Digital Electronics	
	11	English 11 1150	Algebra II 3135	Chemistry 4410	US/VA History 2360		Foreign Language	Civil Engineering and Architecture Biotechnical Engineering Aerospace Engineering	
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160	Physics OR Principles of Technology I (9811-Grades 10 or 11) and Principles of Technology II (9812-Grade 12)	US/VA Gov 2440			Design, Multimedia, and Web Technologies (6632) ^{1,2}	

APPENDIX D:
INFORMATION SUPPORT AND SERVICES
PROGRAM OF STUDIES



Career Cluster: Information Technology
Career Pathway: Information Support and Services



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)		Physical Education <i>Gateway to Technology: Design and Modeling and The Magic of Electrons</i> (2 nine-week sessions)
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Econo mics	Keyboarding (1 nine-week session)		Physical Education <i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space</i> (3 nine-week sessions)
	8	Language Arts 8	Algebra I	Physical Science	World Geography			Physical Education Foreign Language Introduction to Information Technology

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching,</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology Laboratory Practices and Biology Laboratory	World History I or World History II	Physical Education	Foreign Language Information Technology Applications Web site Development Technology Education	IT Fundamentals (6670)^{1, 2} Computer Information Systems	<ul style="list-style-type: none"> • Account Manager • Applications Integrator • Call Center Support Representative • Customer Service Representative • Data Systems Designer • Database Administrator • Database Analyst • E-Business Specialist • Help Desk Specialist • Information Systems Architect • Instructional Designer • Maintenance Technician • PC Support Specialist • PC Systems Coordinator • Product Support Engineer • Support Engineer • Systems Analyst • Technical Communicator • Testing Engineer
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/I or II Geography 2221	Physical Education	Foreign Language	Computer Information Systems (6612) IT Essentials^{1, 2} Cisco	
	11	English 11 1150	Algebra II 3135 Computer Mathematics Geometry	Chemistry I and II (DE)	US/VA History 2360		Foreign Language Engineering Design Oracle SQL	Advanced Computer Information Systems (6615)^{1, 2} Introduction to Network Systems Network System Installation Computer Systems Technology JAVA Programming	

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		Related Careers
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160 Applied Calculus	Physics OR Principles of Technology I (9811-Grades 10 or 11) and Principles of Technology II (9812-Grade 12)	US/VA Gov 2440		Design, Multimedia, and Web Technologies (6632) ¹ Network System Design Network Systems Maintenance and Support	

APPENDIX E:
ADVISORY COUNCIL

**STEM for LIFE Academy
Advisory Council Members**

Member Name	Affiliation
Dr. Lorraine Turner Superintendent	Russell County Public Schools
Diane Tomlinson Director of 21 st Century Grants	Russell County Public Schools
Peggy Baker Dean of Engineering	Southwest Virginia Community College
Barbara Fuller Dean of Business Division	Southwest Virginia Community College
Dr. Mary A. Quillen Director, UVA Southwest Center	University of Virginia
Dr. David Prior Chancellor	University of Virginia College at Wise
The Honorable Dan Bowling Delegate	Virginia House of Delegates
Joey Gillespie Director	Yes, Virginia Virginia Economic Development Partnership
Brian Hooker Principal	Russell County Career and Technical Center
Tony Dodi Mayor	Town of Lebanon
Dr. Robert H. Tomlinson Vice President of Instruction	Southwest Virginia Community College
Shannon R. Blevins Director of Economic Development	University of Virginia College at Wise
The Honorable Bill Phillips Delegate	Virginia House of Delegates

Member Name	Affiliation
Kelly Robinson	Alcoa Wheel Products
Rachel Fawlkes Executive Director	Southwest Virginia Higher Education Center
The Honorable Phillip Puckett Senator	Virginia State Senate
Stephanie Taylor Project Manager	Virginia Department of Business Assistance
Stan C. Kunigelis Biology Professor	University of Virginia College at Wise
Katherine Vande Brake Dean of the School of Arts and Sciences	King College
The Honorable Terry Kilgore Delegate	Virginia House of Delegates
Georgia Mc Cay Administrative Assistant	Elk Garden Elementary School
Ron Bostic CPA	Bostic, Tucker and Company
Anthony Bush Principal	Honaker High School
Rick Chafin General Plant Manager	Appalachian Electric Power Clinch River Plant
Harry Rutherford Chairman	Russell County IDA
Linda Midgett Director of Community Services	People Incorporated of Southwest Virginia
The Honorable Joe Johnson Delegate	Virginia House of Delegates

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Lorraine Turner, Superintendent,
(Name) (Title)

with Russell County Public Schools, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Lorraine Turner
(Signature)

01/23/08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Diane C. Tomlinson, Dir. 21st CCLC,
(Name) (Title)

with Russell County Schools, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Diane C. Tomlinson
(Signature)

1-26-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Peggy Barber, Dean of Engineering,
(Name) (Title)
with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Peggy Barber
(Signature)

Jan 24, 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Barbara J. Fuller, Business Division Director,
(Name) (Title)
with Southwest Virginia Community College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Barbara J. Fuller
(Signature)

1-28-2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Mary A. Quillen, Ph.D., Director, UVA-SW Center
(Name) (Title)

with University of Virginia, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Mary A. Quillen
(Signature)

1-18-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, DAVID PRIOR, CHANCELLOR,
(Name) (Title)

with UVA-WISE, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

30 January 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, DANNY C "DAN" BOWLING, Delegate,
(Name) (Title)
with House of Delegates, District 3, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Danny C. "Dan" Bowling 1-22-2008
(Signature) (Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

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for Lifelong Initiatives for Future Education)

Advisory Council

I, Joey Gillespie, Director,
(Name) (Title)
with Yes Virginia, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.


(Signature)

1-28-08
(Date)

The Pathways Academy

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and Technical Academy**

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(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Brian Hooker, Principal (RCCD),
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Brian Hooker
(Signature)

1-28-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Tony Dudi, Mayor,
(Name) (Title)

with Town of Lebanon, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Tony Dudi
(Signature)

1.25.08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

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for Lifelong Initiatives for Future Education)

Advisory Council

Virginia Coalfield Economic Development Authority (VCEDA) ,
(Name) (Title)
with _____, ~~do~~ hereby certify
(Name of Business, Organization, School) does
that ~~it~~ will be a member and participant of the ~~Planning~~
it Advisory Council
~~Committee for The Pathways Academy, the Russell~~
~~County Governor's Career and Technical Academy.~~

Jonathan Belding
(Signature)

January 28, 2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

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for Lifelong Initiatives for Future Education)

Advisory Council

I, Robert H. Tomlinson, VP of Instruction,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Robert H. Tomlinson
(Signature)

Jan. 21, 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Bill Phillips, Vice President/Member
(Name) (Title)

with Da Homey, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

[Signature]
(Signature)

1.22.08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

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for Lifelong Initiatives for Future Education)**

Advisory Council

I, Shannon R. Blevins, Dir. Economic Development,
(Name) (Title)

with The University of Va's College at Wise, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Shannon R. Blevins
(Signature)

1/25/18
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Kelly Robinson, HR Generalist,
(Name) (Title),
with Alcoa Wheel Products, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Kelly Robinson
(Signature)

1-25-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Rachel D. Fowlkes, Ex. Director,
(Name) (Title)

with SW VA Higher Educ. Center, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Rachel D Fowlkes
(Signature)

1-23-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

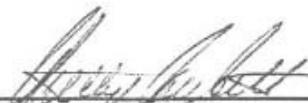
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Phillip Puckett, Senator,
(Name) (Title)

with Virginia State Senate, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.


(Signature)

1-22-08
(Date)

**The Pathways Academy
Russell County Governor's Career and
Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and
Mathematics for Lifelong Initiatives for Future
Education)**

Advisory Council

**I, Barbara M. Willis, Executive Director, with the
Southwest Virginia Public Education Consortium, do
hereby certify that I will be a member and
participant of the Advisory Committee for The
Pathways Academy, the Russell County Governor's
Career and Technical Academy.**



(Signature)

January 21, 2008

(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Stephanie M. Taylor, Project Manager
(Name) (Title)
with VA Dept. of Business Assistance do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Stephanie M. Taylor 01/30/08
(Signature) (Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Stan C. Kuygetis, Bial Prot,
(Name) (Title)

with UVa-Wise, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

S. C. Kuygetis
(Signature)

01-23-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Katherine Vande Brake, Dean, School of Arts + Sciences,
(Name) (Title)
with King College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Katherine Vande Brake
(Signature)

1/28/2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Terry Kilgore, Delegato,
(Name) (Title)

with _____, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Terry Kilgore
(Signature)

11/22/08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Sciences, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Georgia McCoy, Administrative Assistant
(Name) (Title)
with Elk Garden Elem., do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Georgia McCoy 1-29-08
(Signature) (Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Ron Bostic, CPA,
(Name) (Title)

with Bostic, Tucker & Company, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-28-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Anthony L. Bush, Principal,
(Name) (Title)

with HONAKER High, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.


(Signature)

1-29-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Advisory Council

I, Rick Chafin, General Plant Manager,
(Name) (Title)

with AEP Clinch River Plant, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Advisory
Council for The Pathways Academy, the Russell**

County Governor's Career and Technical Academy.

Rick L. Chafin

(Signature)

1-29-08

(Date)

*Other employees of AEP Clinch River Plant may be
appointed in my absence.*

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Harry Rutherford, Chairman,
(Name) (Title)
with Russell County IDA, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning
**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

(Date)

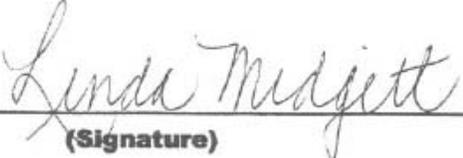
The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

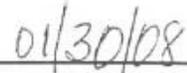
**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

**I, Linda Midgett, Director of Community Services,
with People Incorporated of SW VA, do hereby certify
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)



(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Joe Johnson, Delegate,
(Name) (Title)
Virginia
with House of Delegates, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Joseph P. Johnson Jr
(Signature)

Jan 23, 2008
(Date)

APPENDIX F:
PLANNING COMMITTEE

**STEM for LIFE Governor's Academy
Planning Committee Members**

NAME	AFFILIATION	CONTACT INFORMATION
Lorraine Turner	Russell County Schools	lturner@russell.k12.va.us
Diane Tomlinson	Russell County Schools	dtomlins@russell.k12.va.us
Peggy Barber	Southwest Virginia Community College Dean of Engineering	peggy.barber@sw.edu
Barbara Fuller	Southwest Virginia Community College Dean of Business	barbara.fuller@sw.edu
Mary Quillen	Southwest Virginia Higher Education Center Higher Education Center (representing University of Virginia)	P. O. Box 1987 Abingdon, VA 24212
Dan Bowling	Virginia House of Delegates	P. O. Box Oakwood, VA 24631
Joe Gillespie	Virginia Economic Development Partnership	jgillespie@Yes.virginia.org
Brian Hooker	Principal – Russell County Career and Technical Center	bhooker@russell.k12.va.us
Nelson A. Dodi	Mayor – Town of Lebanon	tdodi@russell.k12.va.us
Robert Tomlinson	Southwest Virginia Community College (Vice-President of Instruction)	bob.tomlinson@sw.edu
Clarence Phillips	Virginia House of Delegates	P. O. Box 36 Castlewood, VA 2422
Shannon Blevins	Director of Economic Development University of Virginia's College at Wise	sblevins@UVAwise.edu
Kelly Robinson	Alcoa Wheel Products	kelly-robinson@alco.com
Rachel Fowlkes	Executive Director Southwest Virginia Higher Education Center	rachel.fowlkes@swcenter.edu
Phillip Puckett	Virginia State Senator	P. O. Box 399 Lebanon, VA 24224
Barbara Willis	Southwest Virginia Public Education Consortium	bmw7c@UVAwise.edu
Stephanie Taylor	Virginia DBA	stephanie.taylor@vdva.virginia.gov
Stan Kunigelis	Professor of Biology University of Virginia's College at Wise	Sck2r@UVAwise.edu

NAME	AFFILIATION	CONTACT INFORMATION
Mark Estepp	Southwest Virginia Community College President	mark.estepp@sw.edu
Katie Vande Brake	King College Instructor	kgrande@king.edu
Terry Kilgore	Virginia House of Delegates	Del.Kilgore@house.state.va.us
Ron Bostic	Bostic, Tucker and Company	rbostic@bthcpa.com
Jani Purtee	Teacher of Engineering Russell County Schools	jpurtee@russell.k12.va.us
Rick L. Chafin	Appalachian Electric Power Company Clinch River Plant	rchafin@aep.com

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Lorraine C. Turner, Superintendent,
(Name) (Title)
with Russell County Public Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Lorraine C. Turner
(Signature)

01/23/08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Diane C. Tomlinson, Dir. 21st CCLC,
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Diane C. Tomlinson
(Signature)

1-26-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Peggy Barber, Dean of Engineering
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Peggy Barber
(Signature)

Jan 24, 2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Barbara J Fuller, Business Division Dean,
(Name) (Title)

with Northwest Virginia Community College do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Barbara J Fuller
(Signature)

1-28-2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Mary A. Quillen, Ph.D., Director - UVA-5N Center
(Name) (Title)

with University of Virginia, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Mary A. Quillen
(Signature)

1-18-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, DANNY C. "DAN" BOWLING, Delegate,
(Name) (Title)

with House of Delegates, District 3, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Danny C. "Dan" Bowling
(Signature)

1-22-2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Joey Gillespie, Director,
(Name) (Title)
with Yes Virginia, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Joey Gillespie
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Brian Hooker, Principal (RCCTC),
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Brian K Hooker
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Robert H. Tomlinson, VP of Instruction,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Robert H. Tomlinson
(Signature)

Jan. 21, 2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Future Education)

Planning Committee

I, B. L. Kelly, Va House Delegate
(Name) (Title)

with Va House Delegate, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning Committee for The Pathways Academy, the Russell County Governor's Career and Technical Academy.

B. L. Kelly
(Signature)

1-22-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Shannon R. Blevins, Director of Economic Development,
(Name) (Title)

with The University of West Georgia at Vici, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Shannon R. Blevins
(Signature)

1/25/8
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Kelly Robinson, HR Generalist,
(Name) (Title)

with Alcoa Wheel Products, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Kelly Robinson
(Signature)

1-25-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)**

Planning Committee

I, Phillip Puckett, VA State Senator,
(Name) (Title)
with Virginia Legislative Session, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-22-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Rachel Fowlkes, Executive Director
(Name) (Title)

with SW. VA. Higher Education Ctr. do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Rachel D. Fowlkes
(Signature)

1-23-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, J. Mark Estep, President,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)

(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for Lifelong
Initiatives for Future Education)*

PLANNING COMMITTEE

I, Barbara M. Willis, Executive Director, with the Southwest Virginia Public Education Consortium, do hereby certify that I will be a member and participant of the Planning Committee for The Pathways Academy, the Russell County Governor's Career and Technical Academy.



(Signature)

January 21, 2008

(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Katherine Vande Brake, Dean, School of Arts+Sciences
(Name) (Title)

with King College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Katherine Vande Brake
(Signature)

1/28/2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Terry Kilgore, Delegate,
(Name) (Title)

with _____, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Terry Kilgore
(Signature)

1/22/08
(Date)

The Pathways Academy

Russell County Governor's Career
and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, JANI PURTEE, TEACHER,
(Name) (Title)

with RUSSELL COUNTY SCHOOLS, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Jani Purtee
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

(Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Future Education)

Planning Committee

I, Rick Chafin, General Plant Manager,
(Name) (Title)
with AEP Clinch River Plant, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.


(Signature)

1-29-08
(Date)

Other employees of AEP Clinch River Plant may be appointed in my absence.

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

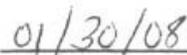
*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

**I, Danny Foster, Youth Services Coordinator,
with People Incorporated of SW VA, do hereby certify
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)



(Date)

The Pathways Academy

Russell County Governor's Career
and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Joe Johnson, Delegate,
(Name) (Title)

with Virginia House of Delegates, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Joseph P. Johnson, Sr.
(Signature)

Jan 23, 2008
(Date)

The Pathways Academy

*Russell County Governor's Career and Technical
Academy*

STEM for LIFE

*[Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education]*

Planning Committee

I, Stephanie M. Taylor, Project Manager
(Name) (Title)

with VA Dept. of Business Assistance, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Stephanie M. Taylor
(Signature)

01/30/08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Stan C. Kunigeli, Biol Prof,
(Name) (Title)

with UVA-Wise, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

S. C. Kunigeli
(Signature)

01-23-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

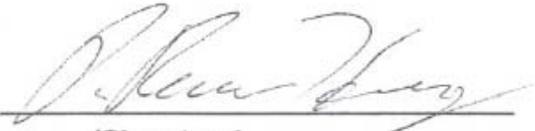
STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Reece Henry, JAG Coordinator,
(Name) (Title)
with RCCTC, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-30-08
(Date)

APPENDIX G:
MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

People Incorporated of Southwest Virginia

This agreement is made and entered into on the 30th day of February, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and People Incorporated of Southwest Virginia, hereinafter referred to as People Incorporated.

PURPOSE: It is the mutual desire of Russell County Public Schools and People Incorporated to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To identify and recruit groups of STEM participants to participate in campus visits provided by People Incorporated.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**
 - D. To keep People Incorporated fully advised of any changes**

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

People Incorporated of Southwest Virginia

This agreement is made and entered into on the 30th day of February, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and People Incorporated of Southwest Virginia, hereinafter referred to as People Incorporated.

PURPOSE: It is the mutual desire of Russell County Public Schools and People Incorporated to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To identify and recruit groups of STEM participants to participate in campus visits provided by People Incorporated.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**
 - D. To keep People Incorporated fully advised of any changes which may affect the agency's performance under this agreement.**

Memorandum of Agreement
Page 2

II. People Incorporated agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.**
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.**
- C. To allow one person from People Incorporated to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:
 - 1. how students will be recruited, selected, and admitted;**
 - 2. a code of student conduct and attendance;**
 - 3. how staff will be recruited, selected, and assigned; and,**
 - 4. staff development topics.****
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:
 - 1. Provide opportunities for STEM participants to attend campus visits in conjunction with its Project Discovery program.**
 - 2. Assist the school counselors' to access applicable People Incorporated program services for families of STEM participants.**
 - 3. Offer information to parents and guardians of STEM participants on post secondary education financial aid and the college application process.****

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.**

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.**

- C. If People Incorporated fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.**

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.**

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

**PEOPLE INCORPORATED OF
SOUTHWEST VIRGINIA**

BY R. H. G. C.

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

University of Virginia's College at Wise

This agreement is made and entered into on the 22 day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and University of Virginia's College at Wise, hereinafter referred to as Va-Wise.

PURPOSE: It is the mutual desire of Russell County Public Schools and Va-Wise to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B. To make available times for Va-Wise personnel to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

Page 2

D. To keep Dr. Stan Kungelis fully advised of any changes which may affect his performance under this agreement.

II. UVA-Wise agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from UVA-Wise to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Development of 2wk summer program in scientific research.
2. Introductory age-appropriate research experiences (1-3days)
3. Research-based classroom presentations by UVA-Wise faculty

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If UVA-Wise fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Loraine C. Turner

University of Virginia's College at Wise

BY William W. Blockman
Provost & Senior Vice Chancellor

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

The University of Virginia's College at Wise

This agreement is made and entered into on the sixteenth day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and The University of Virginia's College at Wise, hereinafter referred to as UVa-Wise.

PURPOSE: It is the mutual desire of Russell County Public Schools and UVa-Wise to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. **Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
 - B. To make available times for representatives of UVa-Wise to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

Page 2

D. To keep UVa-Wise fully advised of any changes which may affect UVa-Wise' performance under this agreement.

II. The University of Virginia at Wise agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from UVa-Wise to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Provide tours of the Southwest Virginia Technology Development Center and the main campus of The University of Virginia's College at Wise
2. Provide UVa-Wise representatives to participate in career fairs, informational sessions and other activities designed to inform students of educational and career opportunities.
3. Provide opportunities for job shadowing and mentoring
4. Explore opportunities for utilizing classroom space at the Southwest Virginia Technology Development Center located in Lebanon for Academy programs, activities and events.

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
Page 3

B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.

C. If The University of Virginia's College at Wise fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.

D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine G. Turner

02/01/08
Date

The University of Virginia's College at Wise

BY David J. Prior
David J. Prior, Chancellor

30 January 2008
Date

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

__Southwest Virginia Community College__

This agreement is made and entered into on the 25 day of January , 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Southwest Virginia Community College , hereinafter referred to as SVCC .

PURPOSE: It is the mutual desire of Russell County Public Schools and SVCC to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for SVCC to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement

Page 2

- D. To keep ___ SVCC ___ fully advised of any changes which may affect ___ SVCC ___ performance under this agreement.**

II. ___ SVCC ___ agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.**
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.**
- C. To allow one person from ___ SVCC ___ to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:**
 - 1. how students will be recruited, selected, and admitted;**
 - 2. a code of student conduct and attendance;**
 - 3. how staff will be recruited, selected, and assigned; and,**
 - 4. staff development topics.**
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:**
 - 1. Provide coursework for teachers and counselors _____**
 - 2. Provide speakers for 6th grade classes _____**
 - 3. Provide campus visits for students to STEM classrooms__**

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.**

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.**

- C. If SVCC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.**

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.**

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

Southwest Virginia Community College

BY Robert H. Tomlinson
Vice President of Instruction

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

Town of Lebanon

This agreement is made and entered into on the 16th day of 2008, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Town of Lebanon, hereinafter referred to as Town.

PURPOSE: It is the mutual desire of Russell County Public Schools and Town of Lebanon to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. **Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
 - B. To make available times for Town employees to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

Page 2

- D. To keep Town of Lebanon fully advised of any changes which may affect Town of Lebanon performance under this agreement.

II. Town of Lebanon agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

- C. To allow one person from Town of Lebanon to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Serve on Advisory
2. Participate in classroom presentations
3. Provide hands-on experiences in science & math

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If Town of Lebanon fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

Town of Lebanon

BY Jay Orr

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

The Southwest Virginia Public Education Consortium

This agreement is made and entered into on the 16 day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and the Southwest Virginia Public Education Consortium, hereinafter referred to as SVPEC.

PURPOSE: It is the mutual desire of Russell County Public Schools and SVPEC to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for Barbara Willis, SVPEC Director, to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

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D. To keep SVPEC fully advised of any changes which may affect the performance under this agreement.

II. SVPEC agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from SVPEC to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

- 1. how students will be recruited, selected, and admitted;**
- 2. a code of student conduct and attendance;**
- 3. how staff will be recruited, selected, and assigned; and,**
- 4. staff development topics.**

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

- 1. Advisory Council**
- 2. Planning Committee**
- 3. Summer Institute Keyboarding**
- 4. Speak to Students, Parents, etc.**

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.

- C. If SVPEC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

Southwest Virginia Public
Education Consortium

BY Barbara M. Willis

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

VEDP

This agreement is made and entered into on the 22 day of January 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Virginia's Economic Development Partnership, hereinafter referred to as VEDP.

PURPOSE: It is the mutual desire of Russell County Public Schools and VEDP to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B. To make available times for VEDP Representatives to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement
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D. To keep VEDP fully advised of any changes which may affect VEDP's performance under this agreement.

II. VEDP agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

REGARDING VEDP'S INVOLVEMENT IN THE PATHWAYS ACADEMY

C. To allow one person from VEDP to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. TO SERVE ON ADVISORY COMMITTEE
2. TO SPEAK TO STUDENTS, PARENTS, GUIDANCE COUNSELORS
3. IN EACH SCHOOL

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If VEDP fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination. *VEDP shall have the right to terminate this agreement at any time upon 30 days notice of termination.*
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS
BY Lorraine C. Turner

VEDP
BY Joe Bellinger

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

AEP - CLINCH RIVER PLANT

This agreement is made and entered into on the 16th day of JANUARY, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Appalachian Electric hereinafter referred to as AEP Power.

PURPOSE: It is the mutual desire of Russell County Public Schools and AEP - CLINCH RIVER PLANT to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A.** To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B.** To make available times for EMPLOYEES to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C.** That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement
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D. To keep AFP fully advised of any changes which may affect AFP's performance under this agreement.

II. AFP- CLINCH RIVER PLANT agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from AFP- CLINCH RIVER PLANT to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Items I, II, III, VI, VII & X ON WAYS TO PARTNER.
2. GUIDANCE COUNSELOR - ONE ON ONE WITH STUDENTS
3. UNDERWRITE EVENTS (ASSIST WITH)

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If AEP-CLINCH RIVER PLANT fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

[Signature] (Edwin Sheeran)
BY Kenn M. Newman-Rader

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

Virginia Intermont College

This agreement is made and entered into on the sixth day of February 2008, by, and between the **Russell County Public Schools**, hereinafter referred to as **Russell County**, and Virginia Intermont, hereinafter referred to as VIC.

PURPOSE: It is the mutual desire of **Russell County Public Schools** and VIC to support a **Governor's Career and Technology Academy**. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of **Russell County** and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for VIC to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement
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- D. To keep Janice Stevens fully advised of any changes which may affect VIC's performance under this agreement.

II. VIC agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.
- C. To allow one person from VIC to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:
1. how students will be recruited, selected, and admitted;
 2. a code of student conduct and attendance;
 3. how staff will be recruited, selected, and assigned; and,
 4. staff development topics.
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Serve on Planning Committee
2. Speak to students, parents and guidance counselors
3. Have students, parents visit our site
4. Participate in summer academy

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If VIC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY _____

Virginia Intermont

BY Anne W. Shumaker, President

Janice A. Stevens

Daniel H. Fetters

Hongsun Li

John R. Stewart

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And
Bostic, Tucker & Company
Ron Bostic

This agreement is made and entered into on the 28th day of January 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Bostic, Tucker & Co., hereinafter referred to as Bostic, Tucker & Co..

PURPOSE: It is the mutual desire of Russell County Public Schools and Bostic, Tucker & Co. to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
- B. To make available times for Bostic, Tucker & Co. to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement
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D. To keep Bostic, Tucker & Co. fully advised of any changes which may affect Bostic, Tucker & Co. performance under this agreement.

II. Bostic, Tucker & Co. agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from Bostic, Tucker & Co. to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Speak to middle school classes
2. support internships
3. workshops for counselors

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

APPENDIX H:
STATEMENT OF ASSURANCES

Governor's Career and Technical Academy
STATEMENT OF ASSURANCES

The authorized signature on this page certifies to the Virginia Department of Education that the authorized official assures that:

1. The planning committee has reviewed the provisions of *Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies* outlined in the Guidance Manual, and understands that an implementation proposal will need to address these criteria and/or others approved by the Virginia Board of Education.
2. The planning committee agrees to follow the guidelines set forth in the *Administrative Procedures for the Establishment of Governor's Career and Technical Academies* document.
3. If the Governor's Career and Technical Academy will be a jointly operated program, an ongoing governing board will be established or maintained to reflect current Board of Education regulations relative to jointly operated schools and programs.
4. A public, government entity will serve as the grant fiscal agent.

Certification by Authorized or Institutional Official:

The applicant certifies that to the best of his/her knowledge the information in this application is correct, that the filing of this application is duly authorized by the partners participating in this process to establish a Governor's Career and Technical Academy, and that the applicant will comply with the statement of assurances.

Lorraine C. Turner	Superintendent
Typed or Printed Name of Authorized Official	Title
	1/28/08
Signature of Authorized Official	Date

APPENDIX I:
FISCAL AGENT

C. Certification for Fiscal Agent

The Russell County Public Schools will be the fiscal agent for the Governor's Career and Technical Academy, known as the Pathways Academy, STEM for LIFE. This public entity is willing and has served as the fiscal agent for many grants, including this one.

Lorraine A. Turner Russell County Public Schools
Superintendent
01/29/08
Date

APPENDIX J:
BUDGET

**STEM for LIFE
Governor's Career and Technical Academy
Budget**

A. Direct Costs	State Funds	Perkins Funds	Other Funds (Local or grant funds to be described in Budget Narrative)	In-Kind
1. Personnel – 1000	\$41,000			
2. Employee Benefits – 2000	6,500			
3. Purchase/Contractual Services – 3000	15,060			
4. Internal Services – 4000	0			
5. Staff Development – 5000	16,000			
6. Summer Activities – 5000	20,600			
7. Travel - 5000	0			
8. Contractual Services – 5000	0			
9. Materials and Supplies – 6000	840			
10. Equipment – 8000	0			
11. Facilities – 8000	0			
Indirect Costs	0			
Total	\$100,000			

The Specifications Committee, composed of representatives of all regions of the state, developed the proposed changes to the specifications with the goal of improving safety and operational effectiveness. Knowing that it is difficult to design statewide specifications that encompass the specific needs of each school division bus fleet in the state, the committee considered the geographic differences of Virginia's regions, the newer technology available for new school buses, the past track record of current specification configurations, specifically the overall cost of maintenance, and any components with a record of failure that could cause safety to be compromised. The Committee also made comparisons with other states and adjusted the current specifications to improve Virginia's minimum specifications and align Virginia's specifications with the best practices of other states.

Additions to the specifications shown in Attachment B are indicated in bold lettering and deletions are indicated by strikethroughs. The proposed specifications will be posted on the department's Web site for 30 days to provide school divisions and other interested parties with the opportunity to review them and offer comments. The comments will be compiled and presented to the Board at its meeting on July 17, 2008. It is anticipated that the final specifications will be presented to the Board at its July 17, 2008, meeting with a request for final approval.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education accept the proposed school bus specifications for first review.

Impact on Resources:

There is no impact on DOE's resources to initiate these specifications.

Timetable for Further Review/Action:

The specifications will be posted on the Department's Web site for 30 days to provide school divisions and other interested parties with the opportunity to review them and offer comments. The comments will be compiled and presented to the Board at its meeting on July 17, 2008. It is anticipated that the final specifications will be presented to the Board at its July 17, 2008, meeting with a request for final approval.

Summary of Proposed Changes to Specifications for School Buses, Effective October 1, 2008

Current Specification	Proposed Change	Reason for Change
<p>Item 28. Tires and Rims. D. All tires on given vehicles shall be of same size and ply rating.</p>	<p>Item 28. Tires and Rims D. All tires on given vehicles shall be of same size and meet or exceed load range rating of the Tire and Rim Association of America, Inc. (TRA) for required gross axle weight rating (GAWR).</p>	<p>Manufacturers no longer use ply rating as a standard. Instead load range rating is used and those standards are developed by the standards body of the Tire and Rim Association of America.</p>
<p>Item 43. A.8. Doors</p>	<p>Item 43. Doors A.8. For power-operated entrance doors, the emergency release valve, switch, or device to release the service door must be placed above, to the immediate left, or to the immediate right of the entrance door and must be clearly labeled in a color contrast with the background of the label.</p>	<p>This change establishes a standard for the location and design of the emergency release valve for the service door. There is currently no set standard for this. Standard placement and design would greatly assist operators no matter which manufacturer type they operate.</p>
<p>Item 50. Identification of School Buses A.5.d. Traffic Warning Lights Sign – Shall be placed in between the top and bottom glass on the rear emergency door, and lettered “STOP WHEN RED LIGHTS FLASH.” The sign shall be marked with retro-reflective NSBY material comprising background for black letters, 6 inches in height...</p>	<p>Item 50. Identification of School Buses A.5.d. Traffic Warning Lights Sign – Shall be placed in between the top and bottom glass on the rear emergency door, and lettered “STOP WHEN RED LIGHTS FLASH.” The sign shall be marked with retro-reflective NSBY material comprising background for black letters, 4 inches in height...</p>	<p>The lettering for the name of the county/city which is on each side of a bus is 4 inches high. Reducing the height of the traffic warning lights lettering from 6 to 4 inches will allow the lettering on the side and back of buses to be consistent in height.</p>

Current Specification	Proposed Change	Reason for Change
Item 66.G. Steps.	Item 66.G. Steps. G. There shall be a “no-smoking” sign placed on the first step riser of the entrance step well from the inside of the bus. The letters shall be red in color with a length of 9 1/2 inches and lettering height of 1 1/4 inches.	Section 15.2-2801 B., Code of Virginia, prohibits smoking on public school buses.
Item 68.B. Storage and Luggage Compartments.	Item 68.B. Storage and Luggage Compartments. B. Optional: Driver’s storage compartment may be above the driver’s area and must not impede ingress and egress. It shall not violate any federal safety standard or the Code of Virginia.	This allows operators to store small personal and trip related items.
Item 80.A. Activity Buses Activity buses shall meet all the specification standards prescribed for school buses.	Item 80.A. Activity Buses Activity buses shall meet all Federal Motor Vehicle Safety Standards for school buses and Items 80.B. through 80.F.	This ensures that activity buses meet the safety standards for school buses as outlined in the federal guidelines for safety as well as Virginia-specific specifications.
Item 80.D.1.c. Activity buses The activity bus transporting school students shall be operated at a safe, legal speed, not in excess of 60 miles per hour.	Item 80.D.1.c. Activity buses D.1.c. The activity bus transporting school students shall be operated at a safe, legal speed, not in excess of 60 miles per hour.	This item is regulated in the 8VAC20-70-30 and not necessary in the specifications.
Minimum Specifications Sheets (pp. 57-73) Tires - various ply specifications	Minimum Specifications Sheets Tires - Remove the ply specification and add language: “Load range meeting TRA standards for required gross axle weight rating (GAWR).”	Manufacturers no longer use ply rating as a standard. Instead load range rating is used and those standards are developed by the standards body of the Tire and Rim Association of America.

Attachment B

To be effective October 1, 2008

PROPOSED SPECIFICATIONS FOR SCHOOL BUSES

THE BUS CHASSIS

- 1. Air Cleaner.**
 - A. The engine intake air cleaner system shall be furnished and properly installed by the chassis manufacturer to meet the engine manufacturer's specifications.
 - B. An air cleaner restriction indicator shall be furnished and installed by chassis manufacturer.

- 2. Alternator.**
 - A. All buses shall be equipped with a heavy duty truck or bus type alternator having a minimum output rating of 130 amperes for Type A buses, and 160 amperes for Type B and above, alternator shall be capable of producing a minimum of 50% of its maximum rated output at the engine manufacturer's recommended idle speed.
 - B. Buses equipped with electrically powered wheelchair lift, air conditioning or other accessories may be equipped with a device that monitors the electrical system voltage and advances the engine idle speed when the voltage drops to, or below, a pre-set level.
 - C. Belt drive shall be capable of handling the rated capacity of the alternator with no detrimental effect on other driven components. Direct-drive alternator is permissible in lieu of belt drive.

- 3. Axles.**
 - A. The front and rear axle and suspension systems shall have a gross axle weight rating at ground commensurate with the respective front and rear weight loads that will be imposed by the bus.
 - B. Rear axle shall be single speed, full-floating type.

- 4. Battery.**
 - A. The storage batteries shall have minimum cold cranking capacity rating (cold cranking amps) equal to the cranking current required for 30 seconds at 0 degrees Fahrenheit and a minimum reserve capacity rating of 120

minutes at 24 amps. Higher capacities may be required, depending upon optional equipment and local environmental conditions.

- B. Batteries shall be mounted in a slide out tray on the left side of the body in a compartment designed for storage batteries.
- C. Exception: Type A units – Batteries may be located in standard manufacturer's position.
- D. Buses may be equipped with a battery shut-off switch. The switch is to be placed in a location not readily accessible to the driver or passengers.

5. Brakes.

- A. Four-wheel brakes, adequate at all times to control bus when fully loaded, shall be provided in accordance with Federal Motor Vehicle Safety Standards.
- B. The chassis brake system shall conform to the provisions of Federal Motor Vehicle Safety Standards (FMVSS) 105 (*Hydraulic and Electric Brake Systems*), 106 (*Brake Hoses*), and 121 (*Air Brake Systems*) as applicable.
- C. Chassis shall be equipped with auxiliary brakes capable of holding vehicle on any grade on which it is operated under any conditions of loading on a surface free from snow or ice. Operating controls of such auxiliary brakes shall be independent of operating controls of service brakes.
- D. Buses having full compressed air systems shall be equipped with a minimum 13.2 cfm engine oil-fed air compressor.
 - 1. Air supply for air compressor shall be taken from the clean side of engine air cleaner system.
 - 2. A desiccant type air dryer with automatic purge and drain cycle and a heating element shall be installed on all air brake buses.
 - 3. Air brake systems shall include system for anti-compounding of the service and parking brakes.
- E. Buses using hydraulic brakes shall have power assist brakes. Hydraulic line pressure shall not exceed recommendation of chassis or brake manufacturer.

6. Bumper, Front.

- A. Front bumper shall be heavy-duty, channel steel at least eight inches in height with 3/16- inch thickness, painted black, and shall be furnished by chassis manufacturer as part of chassis.
- B. Front bumper shall extend to outer edges of fenders at bumper top line (to assure maximum fender protection) and be of sufficient strength to permit pushing, lifting or towing without permanent distortion to bumper, chassis, or body.
- C. Exceptions:
 - 1. Type A vehicles having a Gross Vehicle Weight Rating (GVWR) of 14,500 pounds or less – bumper shall be manufacturer’s standard painted black.
 - 2. Type D vehicles – same as above, except that the front bumper shall be furnished by body manufacturer.
 - 3. Activity vehicles – may be painted a different color other than black. (See Item 80.)

7. Clutch.

- A. Torque capacity shall be equal to or greater than the engine torque output. Clutch facing shall be non-asbestos.
- B. A starter interlock shall be installed to prevent actuation of the starter if the clutch pedal is not depressed.

8. Color.

- A. Chassis, including wheels, front bumper, rails and lettering shall be black. Backs of mirrors should be non-gloss black. The balance of the bus should be yellow.
- B. Hood, cowl, and fenders shall be National School Bus Yellow (NSBY).
- C. All paint shall meet the lead-free standards.
- D. Exception: Activity vehicles shall not be painted NSBY. (See Item 80.)

9. Drive Shaft.

- A. Drive shaft shall be protected by metal guard or guards to prevent it from whipping through floor or dropping to ground if broken.

10. Electrical System.

- A. Battery. See Item 4.
- B. Alternator. See Item 2.
- C. Lights and signals. See Item 20.
- D. Wiring. See Item 79.
- E. Power terminal. Chassis manufacturer shall provide an electric power source terminal for bus body power connection. Wiring from the power source in wiring terminal shall have a current carrying capacity of 125 amperes continuous (minimum 4 gauge wire). If the bus is to be equipped with Air Conditioning or Wheelchair Lift, current carrying capacity shall be increased to 150 amperes continuous.

This conductor shall be routed to cover the least distance practicable between points of termination. It should be of continuous size protected by fusible links, fuses, circuit breakers, or a reset-able electronic circuit protection device, no more than 24 inches from the battery. The terminal shall be of the single post-type, minimum of one-fourth inch (1/4") stud and located in an accessible location for service, subject to approval of the Department of Education.

- F. Light terminal. The chassis manufacturer shall provide a wire terminal adjacent to or in the under dash area of the left side panel accessible to the body company for connection of rear brake lights, tail lights, turn signal lights, and back-up lights. A terminal strip consisting of individual terminals with each terminal properly identified shall be provided to meet this requirement.
- G. Fuse. All fuses shall be located in fuse block and properly identified for the circuit protected.
- H. Each chassis circuit shall be color-coded and a diagram of the circuits shall be included with the chassis.
- I. Wiring harness. All conductors from the alternator to the battery shall be continuous in length. The conductors shall be sized to provide at least a 25% greater current carrying capacity than the design output of the alternator (minimum 4 gauge wire). The conductor between the alternator and the battery shall be routed in a manner that will provide the least distance between points of termination. A separate ground conductor from alternator to engine shall be provided (minimum four-gauge).

- J. Buses using multiplexed electrical systems may meet the intent of these specifications without the use of specified equipment, subject to the approval of the Department of Education.

11. Electronic Engine Speed Limiter.

- A. An electronic engine speed limiter shall be provided and set to limit engine speed not to exceed the maximum revolutions per minute as recommended by the engine manufacturer. For Type B, C, and D buses, and where feasible on Type A buses, bus road speed shall not exceed a maximum of 60 miles per hour.

12. Engine.

- A. The engine shall be of the internal-combustion, four-stroke cycle type.
- B. All gas-powered buses shall have an automatic fire extinguisher system in the engine compartment.

13. Exhaust System.

- A. Exhaust pipe, muffler, and tail pipe shall be outside bus body attached to chassis.
- B. Tail pipe shall be constructed of seamless or electrically welded tubing of 16-gauge steel or equivalent.
- C. Size of tail pipe shall not be reduced after it leaves muffler.
- D. Exhaust system shall be properly insulated from fuel tank and tank connections by securely attached metal shield at any point where it is 12 inches or less from tank or tank connections.
- E. Muffler shall be constructed of corrosion-resistant material.
- F. Types A and B chassis may be furnished with the manufacturer's standard tailpipe configuration.
- G. Exhaust shall exit to the rear and opposite side of vehicles with special service entrances. The exhaust on Type A shall exit behind the rear wheel and to the opposite side of the special service entrance.

14. Fenders, Front.

- A. Total spread of outer edges of front fenders, measured at fender line, shall exceed total spread of front tires when front wheels are in straight-ahead position.

- B. Front fenders shall be properly braced and free from any body attachment.

15. Frame.

- A. Frame lengths shall be established in accordance with the design criteria for the complete vehicle.
- B. Making holes in top or bottom flanges or side units of the frame and welding to the frame shall not be permitted except as provided or accepted by the chassis manufacturer.
- C. Frames shall not be modified for the purpose of extending the wheel base.
- D. Any secondary manufacturer that modifies the original chassis frame shall provide a warranty at least equal to the warranty offered by the original equipment manufacturer (OEM), and shall certify that the modification and other parts or equipment affected by the modification shall be free from defects in material and workmanship under normal use and service intended by the OEM.

16. Fuel Tank.

- A. Fuel tank shall be rated for the appropriate passenger capacity of the vehicle, per manufacture and FMVSS, but shall not be less than 30 gallons. The tank shall be filled and vented to the outside of the body and the fuel filler should be placed on the right side in a location where accidental fuel spillage will not drop or drain on any part of the exhaust system.
- B. Fuel lines shall be mounted to the chassis frame in such a manner that the frame provides the maximum possible protection from damage.
- C. Fuel tank may be mounted between the frame rails or outboard on the right side of the vehicle.
- D. The actual draw capacity of each fuel tank shall be a minimum of 83 percent of the tank capacity.
- E. Exception: Type A Vehicles – fuel tank shall be manufacturer’s standard, mounted, filled, and vented outside of body. Special needs buses will allow for left side fuel filler.

17. Heating System, provision for.

- A. The chassis engine shall have plugged openings for the purpose of supplying hot water for the bus heating system. The opening shall be

suitable for attaching $\frac{3}{4}$ inch pipe thread/hose connector. The engine shall be capable of supplying water having a temperature of at least 170 °F at a flow rate of 50 pounds per minute at the return end of 30 feet of one-inch inside diameter automotive hot water heater hose. (SBMI Standards No. 001-Standard Code for Testing and Rating Automotive Bus Hot Water Heating and Ventilating Equipment.)

- B. Exception: Type A buses shall be manufacturer's standard.

18. Horn.

- A. The bus shall be equipped with a horn(s) of standard make with the horn(s) capable of producing a complex sound in bands of audio frequencies between 250 and 2,000 cycles per second, and tested in accordance with SAE J377, *Horn – Forward Warning – Electric – Performance, Test, and Application*.

19. Instrument and Instrument Panel.

- A. Chassis shall be equipped with following instruments and gauges:
 - 1. Speedometer which will show speed;
 - 2. Odometer which will show accrued mileage, including tenths of miles, tenths of miles can be accrued with trip odometer;
 - 3. Ammeter or voltmeter with graduated scale;
 - 4. Oil pressure gauge;
 - 5. Water temperature gauge;
 - 6. Fuel gauge;
 - 7. Upper-beam headlamp indicator; and
 - 8. Tachometer.
- B. All instruments or gauges shall be mounted on instrument panel in such manner that each is clearly visible to driver in normal seated position. Lights in lieu of gauges are not acceptable.
- C. Exception: Type A vehicles – the ammeter, or voltmeter and its wiring are to be compatible with generating capacity. Tachometer is not required.
- D. Multi-function gauges must have prior approval of the Department of Education.

20. Lights and Signals.

- A. Each chassis shall be equipped with not less than two headlights – beam controlled, and stop and tail lights, and two front turn signal lamps mounted on front fenders. Front turn signal lamps on Type D bodies shall be the same as the rear turn signals unless the turn signals are incorporated as a part of the headlight assemblies or otherwise incorporated into the front end design as approved by the Department of Education.
- B. Lights shall be protected by fuse or circuit breakers.
- C. Self-canceling directional signal switch shall be installed by the chassis manufacturer. The directional signals shall activate only when ignition is in “on” position.
- D. Daytime Running Lights (DRL) are required.
- E. Brake air pressure gauge (air brakes), brake indicator lamp (vacuum/hydraulic brakes), or brake indicator lamp (hydraulic/hydraulic) are required.
- F. Turn signal indicator is required.
- G. Glow-plug indicator lamp is required, where appropriate.
- H. Instruments and controls must be illuminated as required by FMVSS 101 (*Controls and Displays*).

21. Oil Filter.

- A. An oil filter with a replaceable element shall be provided and connected by flexible oil lines if it is not a built-in or an engine-mounted design. The oil filter shall have a capacity in accordance with the engine manufacturer’s recommendation.

22. Openings.

- A. All openings in floorboard or firewall between chassis and passenger-carrying compartment, such as for gearshift lever and auxiliary brake lever, shall be sealed.

23. Passenger Load.

- A. Gross vehicle weight (GVW) (i.e., wet weight, plus body weight, plus driver’s weight of 150 pounds, plus weight of maximum seated pupil load based on not less than 120 pounds per pupil) shall not exceed maximum gross vehicle weight rating as established by manufacturer.

- B. Actual GVW shall not exceed the chassis manufacturer's GVWR for the chassis, nor shall the actual weight carried on any axle exceed the chassis manufacturer's Gross Axle Weight Rating (GAWR).
- C. The manufacturer's GVWR for a particular school bus shall be furnished by manufacturers in duplicate (unless more copies are requested) to the state agency having student transportation jurisdiction. The state agency shall, in turn, transmit such ratings to other state agencies responsible for development or enforcement of state standards for school buses.

24. Retarder System (Optional).

- A. A retarder system, if used, shall limit the speed of a fully loaded school bus to 19.0 mph on a 7 percent grade for 3.6 miles.

25. Shock Absorbers.

- A. Bus shall be equipped with front and rear double-acting shock absorbers compatible with manufacturer's rated axle capacity.

26. Springs.

- A. Springs or suspension assemblies shall be of ample resiliency under all load conditions and of adequate strength to sustain loaded bus without evidence of overload.
- B. Springs or suspension assemblies shall be designed to carry their proportional share of gross vehicle weight.
- C. Rear springs shall be of progressive, variable, parabolic or air ride type.
- D. Stationary eye of the front spring shall be protected by full wrapper leaf in addition to main leaf.
- E. The capacity of springs or suspension assemblies shall be commensurate with the chassis manufacturer's GVWR and chassis specification minimums.
- F. Exception: Type A vehicles – springs that are regular equipment on vehicle to be purchased may be used.

27. Steering Gear.

- A. Steering gear shall be approved by chassis manufacturer and designed to assure safe and accurate performance when vehicle is operated with maximum load and maximum speed.

- B. No changes shall be made in steering apparatus that are not approved by chassis manufacturer.
- C. There shall be clearance of at least two inches between steering wheel and cowl instrument panel, windshield, or any other surface.
- D. Power steering is required and shall be of the integral type with integral valves.
- E. The steering system shall be designed to provide a means for lubrication of all wear-points that are not permanently lubricated.

28. Tires and Rims.

- A. Tire and rim sizes, based upon current standards of **the Tire and Rim Association of America, Inc. (TRA)**, shall be required.
- B. Total weight imposed on any tire shall not be above **the** current standard of ~~Tire and Rim Association~~ **the TRA**.
- C. Dual rear tires shall be provided on all vehicles.
- D. All tires on given vehicles shall be of **the** same size and ~~ply rating~~ **shall meet or exceed the load range rating of the TRA for required GAWR.**
- E. Spare tire, if required, shall be suitably mounted in accessible location outside passenger compartment.

29. Towing Attachment Points.

- A. Rear towing devices (i.e. tow hooks, tow eyes, or other designated towing attachment points) shall be furnished to assist in the retrieval of buses that are stuck and/or for towing buses when a wrecker with a “wheel lift” or an “axle lift” is not available or cannot be applied to the towed vehicle.
- B. Towing devices shall be attached to the chassis frame either by the chassis manufacturer or in accordance with the chassis manufacturer’s specifications.
- C. Each rear towing device shall have a strength rating of 13,500 pounds with the force applied in the rearward direction, parallel to the ground, and parallel to the longitudinal axis of the chassis frame rail.
- D. The towing devices shall be mounted such that they do not project rearward of the rear bumper.

30. Transmission.

- A. Mechanical type transmission shall be synchromesh except first and reverse gears. Its design shall provide not less than four forward and one reverse speeds. With five-speed transmission, fifth gear shall be direct.
- B. Automatic transmissions are permissible when equipped with a parking pawl or approved parking brake system.

31. Turning Radius.

- A. Chassis with a wheel base of 264 inches or less shall have a right and left turning radius of not more than 42 ½ feet, curb to curb measurement.
- B. Chassis with a wheel base over 264 inches shall have a right and left turning radius of not more than 44 ½ feet curb to curb measurement.

32. Weight Distribution.

- A. Shall be established by chassis manufacturers' engineering department.

33. Wheels.

- A. Disc wheels are required.

THE BUS BODY

34. Aisle.

- A. Minimum clearance of all aisles, including aisle (or passageway between seats) leading to emergency door shall be 12 inches. Aisles shall be unobstructed at all times.
- B. Aisle supports of seat backs shall be slanted away from aisle sufficiently to give aisle clearance of 15 inches at top of seat backs.

35. Back-up Alarm.

- A. An automatic audible alarm shall be installed behind the rear axle and shall comply with the published Backup Alarm Standards (SAE J994b), providing a minimum of 112 dBA, or shall have a variable volume feature that allows the alarm to vary from 87 dBA to 112 dBA sound level, staying at least 5 dBA above the ambient noise level.

36. Body Sizes.

- A. Sizes are based on knee-room clearance between rows of forward-facing seats, overall width, center aisle width, and average rump width.

37. Bumper, Rear.

- A. Rear bumper shall be of pressed steel channel at least 3/16 inch by 9 ½ inches.
- B. It shall be wrapped around back corners of bus. It shall extend forward at least 12 inches, measured from rear-most point of body at floor line.
- C. Bumper shall be attached to chassis frame in such manner that it may be easily removed, shall be so braced as to develop full strength of bumper section from rear or side impact, and shall be so attached as to prevent hitching of rides.
- D. Rear bumper shall extend beyond rear-most part of body surface at least one inch, measured at floor line.
- E. Exception: Type A vehicles – Rear bumper shall be standard type furnished by chassis manufacturer as part of chassis on conversions. Body manufacturer will furnish bumper on cutaway chassis.

38. Color.

- A. School bus body including hood, cowl, external speakers and fenders shall be painted uniform color – National School Bus Yellow (NSBY). Prior to the application of the finish coats to the bus body, hood and cowl, external speakers and fenders, all surfaces shall be cleaned of grease, foreign matter, excessive body caulking, sealing material and treated as per paint manufacturer's recommendation for proper adhesion and painted NSBY.
- B. Grill shall be NSBY, silver, or gray, if painted; otherwise it shall be chrome or anodized aluminum.
- C. Rear bumper, body trim, and rub rails shall be painted black. Must meet color requirements specific to bus. (See "Bus Chassis" Item 8 for specific specifications.)
- D. The roof of the bus may be painted white extending down to the drip rails on the sides of the body except that front and rear roof caps shall remain NSBY.
- E. All paint shall meet the lead-free standards.

- F. Paint shall be applied for a total dry thickness of at least 1.8 mils over all painted surfaces.

Exception: Activity vehicle – Activity vehicle shall not be painted NSBY. Bumpers, body trim and rub rails may be painted a different color other than black. (See Item 80.)

- G. Retro-reflective tape. Material shall be Type V or better, as determined by the American Society of Testing Materials (ASTM: D4956-90).
“Standard specifications for reflective sheeting for traffic control.”

1. The rear of the bus body shall be marked with strips of retro-reflective NSBY material to outline the perimeter of the back of the bus using material which conforms with the requirements of FMVSS 131 (*School Bus Pedestrian Safety Devices, Table 1*). The perimeter marking of rear emergency exits per FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*), and/or the use of retro reflective “SCHOOL BUS” signs partially accomplishes the objective of this requirement. To complete the perimeter marking of the back of the bus, strips of at least 1 ¾ inch retro-reflective NSBY material shall be applied horizontally above the rear windows and above the rear bumper, extending from the rear emergency exit perimeter, marking outward to the left and right rear corners of the bus. Vertical strips shall be applied at the corners connecting these horizontal strips.
2. “SCHOOL BUS” signs shall be marked with retro reflective NSBY material comprising background for lettering of the front and/or rear “SCHOOL BUS” signs.
3. Sides of the bus body shall be marked with at least 1 ¾ inch retro reflective NSBY material, extending the length of the bus body and located (vertically) between the floor line and the beltline.

39. Communication System – Optional Equipment.

- A. Communication systems. If communication systems are used on school buses, the systems shall be subject to written policies adopted by the local school board. Installation shall be subject to the Department of Education Fleet Assessment.

1. The radio mounting shall be in the driver’s compartment in a safe, secure location, so as not to interfere with normal bus operation.
2. Mounting shall be permanent. Temporary mountings will not be acceptable.

3. Wiring shall be protected by a proper fuse or circuit breaker and permanently connected to an accessory circuit shut off by ignition switch. Plug-in type connections are not acceptable.
 4. Antenna shall be permanently mounted so as not to interfere with driver's vision of roadway. Antenna lead-in cable shall be permanently secured with the proper clamps, grommets, and sealant. Antenna cable may not pass through window opening.
- B. Public address system. For use by driver, the system contains an inside speaker and/or an external speaker that is of special use when driver needs to caution pupils about surrounding dangers at school bus stops. Inside speakers shall be recessed type.
- C. AM/FM radios, cassette players or CD players. If AM/FM radios, cassette players, or CD players are installed, they shall be properly mounted by the body manufacturer or local shop personnel. All wiring shall be properly connected and concealed and any speakers shall be of recessed type.

No internal speakers, other than the driver's communication systems, may be installed within 4 feet of the driver's seat back in its rearmost upright position.

- D. Camera. Both equipment and installation shall be subject to the Department of Education fleet assessment.
1. The equipment must be installed in an area at the front of the bus.
 2. The equipment is outside the federal head impact zone, FMVSS 222 (*School Bus Passenger Seating and Crash Protection*).
 3. The equipment is located in an area not likely to cause student injury.
 4. The equipment will have no sharp edges or projections.

40. Construction, Type B, C, and D Vehicles.

- A. Construction of body shall meet all requirements of FMVSS 220 (*School Bus Rollover Protection*), 49 CFR § 571.220, FMVSS 221 (*School Bus Joint Strength*), 49 CFR § 571.221, and all other applicable federal standards.
- B. Construction shall be of prime commercial quality steel or other material with strength at least equivalent to all-steel as certified by bus body manufacturer. All such construction materials shall be fire resistant.
- C. Construction shall provide reasonable dust proof and watertight unit.

- D. Bus body (including roof bows, body posts, strainers, stringers, floor, inner and outer linings, rub rails and other reinforcements) shall be of sufficient strength to support entire weight of fully loaded vehicle on its top or side if overturned. Bus body as unit shall be designed and built to provide impact and penetration resistance.
- E. Side posts and roof bows. There shall be a body side post and roof bow fore and aft of each window opening. This may be a continuous bow or two separate pieces effectively joined.
- F. Floor shall be of prime commercial quality steel of at least 14-gauge or other metal or other material at least equal in strength to 14-gauge steel. Floor shall be level from front to back and from side to side except in wheel housing, toe board, and driver's seat platform areas. When plywood is used, it shall be of 1/2-inch exterior B.B. Grade or equivalent and securely fastened to the existing steel floor.
- G. Roof strainers. Two or more roof strainers or longitudinal members shall be provided to connect roof bows, to reinforce flattest portion of roof skin, and to space roof bows. These strainers may be installed between roof bows or applied externally. They shall extend from windshield header and, when combined with rear emergency doorpost, are to function as longitudinal members extending from windshield header to rear floor body cross member. At all points of contact between strainers or longitudinal members and other structural material, attachment shall be made by means of welding, riveting or bolting.
- H. Floor sills. There shall be one main body sill at each side post and two intermediate body sills on approximately 10-inch centers. All sills shall be of equal height, not to exceed three inches. All sills shall extend width of body floor except where structural members or features restrict area.
- Main body sill shall be equivalent to or heavier than 10-gauge and each intermediate body sill shall be equivalent to or heavier than 16-gauge, or each of all sills shall be equivalent to or greater than 14-gauge. All sills shall be permanently attached to floor.
- Connections between sides and floor system shall be capable of distributing loads from vertical posts to all floor sills.
- I. All openings between chassis and passenger-carrying compartment made due to alternations of body manufacturer shall be sealed. (See Item 59).
- J. A cover shall be provided for the opening to the fuel tank fill pipe.

- K. A moisture and rustproof removable panel shall be provided in the floor for access to the fuel tank sender gauge. It shall be designed for prolonged use and adequate fastening to the floor.

41. Construction, Type A Vehicles.

- A. Construction of body shall meet all requirements of FMVSS 220 (*School Bus Rollover Protection*), 49 CFR § 571.220, and all other applicable federal standards.
- B. Body joints created by body manufacturer shall meet the 60% joint strength provision required in FMVSS 221 (*School Bus Body Joint Strength*), 49 CFR § 571.221, for Type B, C, and D buses.
- C. Construction shall be of prime commercial quality steel or other material with strength at least equivalent to all steel as certified by bus body manufacturer. All such construction materials shall be fire resistant.
- D. Construction shall provide reasonably dustproof and watertight unit.
- E. Bus body (including roof bows, body posts, strainers, stringers, floor, inner and outer linings, rub rails and other reinforcements) shall be of sufficient strength to support entire weight of fully loaded vehicle on its top or side if overturned. Bus body as unit shall be designed and built to provide impact and penetration resistance.
- F. Floor. Plywood of ½ inch exterior B.B. Grade or equivalent shall be applied over the existing steel floor and securely fastened. Floor shall be level from front to back and from side to side except in wheel housing, toe board, and driver seat platform areas.
- G. Roof strainers. Two or more roof strainers or longitudinal members shall be provided to connect roof bows to reinforce flattest portion of roof skin, and to space roof bows. These strainers may be installed between roof bows or applied externally. They shall extend from windshield header to rear body header over the emergency door. At all points of contact between strainers or longitudinal members and other structural material, attachment shall be made by means of welding, riveting, or bolting.

After load as called for in Static Load Test Code has been removed, none of the following defects shall be evident:

1. Failure or separation at joints where strainers are fastened to roof bows;
2. Appreciable difference in deflection between adjacent strainers and roof bows;

3. Twisting, buckling, or deformation of strainer cross-section.
- H. Area between floor and window line shall be restructured inside to include at least four vertical formed reinforcement members extending from floor to window line rail. They shall be securely attached at both ends.
- I. Rear corner reinforcements. Rear corner framing of the bus body between floor and window sill and between emergency door post and last side post shall consist of at least one structural member applied horizontally to provide additional impact and penetration resistance equal to that provided by frame members in areas of sides of body. Such member shall be securely attached at each end.
- J. All openings between chassis and passenger carrying compartment made due to alterations by body manufacturers shall be sealed. (See Item 59.)

42. Defrosters.

- A. Defrosting and defogging equipment shall direct a sufficient flow of heated air onto the windshield, the window to the left of the driver and the glass in the viewing area directly to the right of the driver to eliminate frost, fog and snow. (Exception: The requirements of this standard do not apply to the exterior surfaces of double pane storm windows.)
- B. The defrosting system shall conform to SAE J381, *Windshield Defrosting Systems Test Procedure and Performance Requirements – Trucks, Buses, and Multipurpose Vehicles*.
- C. The defroster and defogging system shall be capable of furnishing heated, outside ambient air, except that the part of the system furnishing additional air to the windshield, entrance door and step well may be the recirculating air type.
- D. Exception: Type A vehicle, auxiliary fan is not required.

43. Doors.

- A. Service Door.
 1. Service door shall be manually or power-operated, under control of driver, and so designed as to afford easy release and prevent accidental opening. No parts shall come together so as to shear or crush fingers.
 2. Service door shall be located on right side of bus opposite driver and within his direct view.

3. Service door shall have minimum horizontal opening of 24 inches and minimum vertical opening of 68 inches.
4. Service door shall be of split-type, outward opening type.
5. All door glass shall be approved safety glass. Bottom of lower glass panel shall not be more than 10 inches from the bottom of the door. Top of upper glass panel shall not be more than three inches from top of door opening.
6. Vertical closing edges shall be equipped with flexible material to protect children's fingers.
7. All doors shall be equipped with padding at the top of each door opening. Pad shall be at least three inches wide and one-inch thick and extend the full width of the door opening.
8. **For power-operated entrance doors, the emergency release valve, switch, or device to release the service door must be placed above, to the immediate left, or to the immediate right of the entrance door and must be clearly labeled in a color contrast with the background of the label.**

B. Rear Emergency Door Type B, C, and D vehicles.

1. Emergency door shall be located in center of rear end of bus.
2. Rear emergency door shall have minimum horizontal opening of 24 inches and minimum vertical opening of 45 inches measured from floor level.
3. Rear emergency door shall be hinged on right side and shall open outward and be equipped with an adequate strap or stop to prevent door from striking lamps or right rear of body. Such strap or stop shall allow door to open at least at a 90-degree angle from closed position.

Exception: Type D vehicles with rear engines – Emergency door shall be located on the left side, shall be hinged on the front side and open outward. Door shall meet all requirements of FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*), 49 CFR § 571.217.

4. The upper portion of the emergency door shall be equipped with approved safety glazing, the exposed area of which shall be at least 400 square inches. The lower portion of the rear emergency door on Types A, B, C and D vehicles shall be equipped with a minimum of 240 square inches of approved safety glazing. This

glass shall be protected by a metal guard on the inside. This guard shall be free of any sharp edges that may cause injury to passengers.

5. There shall be no steps leading to emergency door.
6. When not fully latched, emergency door shall actuate signal audible to driver by means of mechanism actuated by latch.
7. Words "EMERGENCY DOOR," both inside and outside in black letters two inches high, painted or vinyl, shall be in compliance with FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*).
8. The emergency door shall be designed to open from inside and outside bus. It shall be equipped with a slide bar and cam-operated lock located on left side of door and fastened to the door framing.

The slide bar shall be approximately 1 ¼ inches wide and 3/8 inch thick and shall have a minimum stroke of 1 ¼ inches. The slide bar shall have a bearing surface of a minimum of ¾ inch with the door lock in a closed position. Control from driver's seat shall not be permitted. Provision for opening from outside shall consist of non-detachable device so designed as to prevent hitching-to, but to permit opening when necessary. Door lock shall be equipped with interior handle and guard that extend approximately to center of door. It shall lift up to release lock.

9. All doors shall be equipped with padding at the top edge of each door opening. Pad shall be at least three inches wide and one inch thick and extend the full width of the door opening.

C. Rear emergency door, Type A vehicles.

1. Emergency door shall be located in center of rear end of bus and shall be equipped with fastening device for opening from inside and outside body, which may be quickly released but is designed to offer protection against accidental release. Control from driver's seat shall not be permitted. Provision for opening from outside shall consist of device designed to prevent hitching-to but to permit opening when necessary.
2. No seat or other object shall be placed in bus which restricts passageway to emergency door to less than 12 inches.

D. Security locking system.

1. A locking system to lock the emergency door(s) or roof hatch(es) exists and the entrance door may be installed.
2. The system shall meet requirements of FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*) and be equipped with an interlock in the chassis starting circuit and an audible alarm to indicate when an emergency exit is locked while the ignition switch is in the “on” position.
3. A cutoff switch on the interlock circuit or any exit equipped with a lock and hasp shall not be allowed.
4. The entrance door lock system shall not permit hooking or snagging during passenger egress/ingress.

44. Emergency Equipment.

A. Fire Extinguisher.

1. The bus shall be equipped with one dry-chemical fire extinguisher of at least five-pound capacity with pressure indicator, mounted in extinguisher manufacturer’s bracket of automotive type, and located in full view and in an accessible place in the front of the bus.
2. The fire extinguisher shall bear label of Underwriters’ Laboratories, Inc., showing a rating of 2A 10BC, or greater.
3. Fire extinguisher shall have aluminum, brass, or steel valves, heads, check stems, siphon tubes, levers, safety pins, chain, handles and metal hanging brackets. Plastic shall not be used for those named parts.

B. First Aid Kit.

1. Bus shall carry Grade A metal first-aid kit, unit-type, mounted in full view and in an accessible place in the front of the bus and identified as a first-aid kit.

2. The first-aid kit shall contain the following items:

Item	Unit
Bandage compress (sterile gauze pads) 4-inch	3
Bandage compress (sterile gauze pads) 2-inch	2
Adhesive absorbent bandage (nonadhering pad) 1 x 3 inch	2
Triangular bandage, 40-inch	2
Gauze bandage, 4 inch	2

Absorbent-gauze compress	1
Antiseptic applicator (swab type) 10 per unit (Zephiran Chloride/Green Soap type)	2
Bee sting applicator (swab type) 10 per unit	1
Pair medical non-latex examination gloves	1
Mouth-to-mouth airway	1

C. Warning Devices.

1. Bus shall be equipped with a kit containing three reflectorized triangular warning devices meeting requirements of FMVSS 125 (*Warning Devices*), 49 CFR § 571.125.
2. Kit shall be securely mounted.

D. Body Fluid Clean-up Kit.

1. Each bus shall carry a Grade A metal or rigid plastic kit, mounted in an accessible place and identified as a body fluid clean-up kit with a directions for use sheet attached to the inside cover.
2. The kit shall be moisture proof and properly mounted or secured in a storage compartment.
3. Contents shall include but not be limited to the following items:
 - a. One pair non-latex gloves
 - b. One pick-up spatula or scoop
 - c. One face mask
 - d. Infectious liquid spill control powder
 - e. Anti-microbial hand wipes – individually wrapped
 - f. Germicidal disinfectant wipes – tuberculocidal
 - g. Plastic disposal bag with tie

E. Seat Belt Cutter.

1. Each bus shall be equipped with a durable webbing cutter having a full width handgrip and a protected, replaceable or non-corrodible blade. The required belt cutter shall be mounted in a location accessible to the seated driver in an easily detachable manner.

45. Emergency Exits.

- A. Each emergency exit shall comply with FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*), 49 CFR § 571.217, regarding the number of exits, types of exits and location of exits based on the capacity of the vehicle.
1. Side Emergency Exit Doors.
 - a. A dedicated aisle of at least 12 inches in width, referenced to the rear of the emergency exit door is required.
 - b. Side emergency exit doors shall be hinged on the forward edge.
 - c. When not fully latched, side emergency exit door shall actuate a signal audible to the driver by means of a mechanism actuated by the latch when the ignition switch is on.
 - d. A security locking system designed to prevent vandalism may be installed provided it meets all specifications of Item 43 D.
 2. Roof Exits/Vents.
 - a. All vehicles shall be equipped with a minimum of one emergency roof exit/vent approved by the Department of Education.
 - b. When not fully latched, this exit shall actuate a signal audible to the driver by means of a mechanism actuated by the latch when the ignition switch is on.
 - c. A roof exit/vent security locking system designed to prevent vandalism may be installed provided it meets all specifications of Item 43 D.
 - d. When a single roof exit is installed, it shall be located as near as practicable to the longitudinal midpoint of the passenger compartment, and shall be installed such that the centerline of the hatch is on the longitudinal centerline of the bus.
 - e. If two roof exits are utilized, they shall be located as near as practicable to the points equidistant between the

longitudinal midpoint of the passenger compartment and the front and the rear of the passenger compartment.

NOTE: No removal or cutting of any roof structural component shall occur during installation. If the installation required by subdivisions 2 d and 2 e of this section cannot be accomplished as described, then prior approval by the Department of Education will be required through a written request from the local school division.

- f. Roof exits/vents shall have rustproof hardware.
 - g. Roof exits/vents shall be hinged in the front and be equipped with an outside release handle.
3. Emergency exit windows.
- a. Push-out emergency windows are permissible, if required by FMVSS 217 (*Bus Emergency Exits and Window Retention and Release*), 49 CFR § 571.217.
 - b. When not fully latched, the emergency exit window shall actuate a signal audible to the driver by means of a mechanism actuated by the latch.
 - c. No emergency exit window shall be located directly in front of a side emergency exit door.

46. Floor Covering.

- A. Floor in under seat area, including tops of wheel housings, driver's compartment and toe board shall be covered with fire-resistant rubber floor covering or an approved equivalent, having minimum overall thickness of .125 inch. Driver's compartment and toe board area shall be trimmed with molding strips behind the cowl face line.
- B. Floor covering in aisle shall be of aisle-type fire resistant rubber or an approved equivalent, nonskid, wear-resistant and ribbed. Minimum overall thickness shall be .1875 inch measured from tops of ribs and have a calculated burn rate of 0.1 or less, using the test methods, procedures and formulas listed in FMVSS 302 (*Flammability of Interior Materials*). Rubber floor covering shall meet federal specifications ZZ-M71d.
- C. Floor covering shall be permanently bonded to floor, and shall not crack when subjected to sudden changes in temperature. Bonding or adhesive material shall be waterproof and shall be of the type recommended by

manufacturer of floor-covering material. All seams shall be sealed with waterproof sealer.

- D. All floor covering seams shall be covered with trim and fastened with screws.
- E. On Types B, C, and D buses, a flush-mounted, screw-down plate that is secured and sealed shall be provided to access the fuel tank sending unit and/or fuel pump. This plate shall not be installed under flooring material.

47. Handrails.

- A. At least 1 handrail shall be installed. The handrail(s) shall assist passengers during entry or exit, and shall be designed to prevent entanglement, as evidenced by the passing of the NHTSA string and nut test.

48. Heaters.

- A. Hot water heaters of fresh air or combination fresh air and recirculating type, with power defrosters, are required.
- B. Heaters shall bear nameplate rating affixed by heater manufacturer on top of heater shell.
- C. Heaters shall be capable of maintaining inside temperature of 50° F, with an outside temperature of 20° F when the bus is loaded to one-half capacity.
- D. The heater wiring shall be connected to the cold side of the ignition switch through a continuous duty solenoid relay.
- E. The power defroster shall deliver a sufficient amount of heated air distributed through a windshield duct, nozzle or nozzles to defog and de-ice the entire windshield, and to defog the driver's window. The duct, nozzle, or nozzles shall be designed to prevent objects from being placed in any manner that would obstruct the flow of air.
- F. Water circulation cut-off valves in the supply and return lines, a minimum of ¾ inch diameter, shall be at or near the engine. A water flow-regulating valve in the pressure line for convenient operation by the driver is also required. All valves shall be ¼ turn ball type.
- G. Heater hoses, including those in engine compartment, shall be supported in such manner that hose chafing against other objects will not occur nor shall suspended water lines interfere with routine vehicle maintenance.

- H. All water hoses in driver or passenger area shall be shielded.
- I. An auxiliary heater of recirculating type, having a minimum capacity of 60,000 BTU output, shall be installed under the second seat behind the wheel housing. There shall be a grille or guard over exposed heater cores to prevent damage by pupils' feet.
- J. Exception: Type A and D vehicles.
 - 1. Front heater with high output and defroster shall be furnished by the chassis manufacturer.
 - 2. The body manufacturer shall provide an additional under seat heater near the rear of the bus.
- K. All heater cores shall be the coiled tubing fin type approved by the Department of Education.

49. Hinges.

- A. All exterior metal door hinges shall be designed to allow lubrication to be channeled to the center 75% of each hinge loop without disassembly, unless they are constructed of stainless steel, brass or non-metallic hinge pins or other designs that prevent corrosion.

50. Identification of School Buses.

- A. All lettering shall be of black paint or vinyl decal and conform to "Series B" for Standard Alphabets for Highway Signs. The words "SCHOOL BUS" shall be on reflective yellow background. See Diagrams 1 and 2. For purposes of identification, school buses shall be lettered as follows:
 - 1. Both the front and rear of the body shall bear the words, "SCHOOL BUS" in black letters eight inches in height.
 - 2. The bus number shall be placed just back of the front warning sign on the left side, just behind the entrance door on the right side and be 4 inches high. The number is required on the left side of the front bumper (driver's side). The number shall be placed on the rear body of the bus and shall be 4 inches high.
 - 3. (Name of) County Public Schools or (Name of) City Public Schools shall be placed on each side of the bus body at the beltline and be 4 inches high.
 - 4. Type of Fuel – Identification of fuel type shall be in 2 inch lettering adjacent to the fuel filler opening.

5. Options - The following lettering and signs are options, but if equipped, they must conform to these specifications:
- a. The bus number may be placed in the center of the bus roof with black (12-inch minimum) numbers.
 - b. The bus number (4 inches minimum) shall be placed on the inside rear header with black paint or vinyl decals. It shall not interfere with the Emergency Door letterings.
 - c. Battery - The location of the battery identified by the word "Battery" or "Batteries" on the battery compartment door in 2 inch lettering.
 - d. Traffic Warning Lights Sign – Shall be placed in between the top and bottom glass on the rear emergency door, and lettered "STOP WHEN RED LIGHTS FLASH." The sign shall be marked with retro-reflective NSBY material comprising background for black letters, 6 4 inches in height. On a rear-engine Type D bus, the sign shall be placed in the center of the engine door.
Exception: The sign shall not be mounted on any activity vehicle.
 - e. Stop for Railroad Crossing Sign – The sign shall be placed on the rear of the bus.
 - f. Identification Sign for Students – A sign with symbols and/or numbers displaying identification information for the students of the bus or route served shall be mounted on the right side of the bus near the entrance door. The sign shall be no larger than 121 square inches.
 - g. American Flag Decals – Non-reflective, American Flag decals, no larger than 6 inches by 10 inches shall be placed on the exterior of the bus, on both sides and/or at the rear of the bus. The decals shall be centered between the top two rub rails and mounted so that the right edge of the decal is no closer than 3 inches from the bus number or so that the left edge of the decal is no further than 12 inches from the bus number. A rear decal shall be centered in the rear of the bus.

Exception: Type A buses shall mount the decals below the second rub rail and centered below the bus number on both sides.

- h. Bus Safety Hotline Sign – A sign with yellow lettering on black background may be mounted in the center of the rear bumper with the letters “School Bus Safety Hotline Call (area) xxx-xxxx. The sign is not to exceed 3 ¼ inches high x 10 inches wide.

51. Inside Height.

- A. Inside body height shall be 72 inches or more, measured metal to metal, at any point on longitudinal center line from front vertical bow to rear vertical bow.
- B. Exception: Type A conversion van – Inside body height shall be 62 inches minimum.

52. Insulation.

- A. Ceilings and walls shall be coated with proper materials to deaden sounds and to reduce vibrations to a minimum. Thermal insulation (minimum R-value of 5.5) shall be used to insulate walls and roof between inner and outer panels.

53. Interior.

- A. Interior of bus shall be free of all unnecessary projections likely to cause injury. This standard requires inner lining on ceilings and walls. Ceiling panels shall be constructed so as to contain lapped joints with all exposed edges hemmed to minimize sharpness. If lateral panels are used, forward panels shall be lapped by rear panels.

54. License Plates.

- A. All vehicles shall be constructed so that mounting and securing of license plates will be compliant with FMVSS and Code of Virginia, Section 46.2-716.

55. Lights and Signals.

- A. No lights or signals other than specified here shall be installed on school buses, except those required by federal regulations. All lights and reflectors shall be approved by the Superintendent, Department of State Police, Commonwealth of Virginia.
 - 1. Clearance lights. Body shall be equipped with two red clearance lamps at rear, two amber clearance lamps at front, and intermediate side marker lamps on buses 30 feet or more in length controlled by headlight switch. They may be of armour type.

2. Identification lamps. Three amber lamps shall be mounted on front and three red lamps on rear of body controlled by the headlight switch.
3. Stop and tail lamps. Bus shall be equipped with two matched stop and tail lamps of heavy duty type, which shall be in combination, emitting red light plainly visible from a distance of at least 500 feet to rear, and mounted on rear end with their centers not less than 12 nor more than 24 inches from plane side of body, and not less than six or more than 18 inches below D-glass in rear of body. They shall be approximately seven inches in diameter or, if a shape other than round, a minimum 38 square inches of illuminated area and shall meet SAE specifications. These lights shall be on the same horizontal line with the turn signal units and shall not flash.
4. Back-up lamps. The bus body shall be equipped with 2 white rear backup lamps that are at least 4 inches in diameter or, if a shape other than round, a minimum of 12 square inches of illuminated area and shall meet FMVSS 108 (*Lamps, Reflective Devices, and Associated Equipment*). If backup lamps are placed on the same horizontal line as the brake lamps and turn signal lamps, they shall be to the inside.
5. Interior lamps. Interior lamps shall be provided which adequately illuminate aisles and step well.
6. Turn signal units. Bus shall be equipped with Class A, flashing turn signal units of heavy-duty type. These signals shall be independent units equipped with amber lenses on all faces. The turn signals/directional signal units shall activate only when ignition is in "on" position. A pilot light or lights shall indicate when these lights are activated. The front lights shall be mounted near the front corners of chassis on each side. The rear lights shall be seven inches in diameter, or if a shape other than round, the lights must be 38 square inches in area and mounted not less than six nor more than 18 inches from plane of the side of the body and not less than six nor more than 18 inches below D-glass in rear of body. They shall be on the same horizontal line with the stop and tail lights required in 3 above.
 - a. In addition to the turn signals described above, two amber lenses metal turn signal lamps of armour-type with a minimum of four candlepower each shall be mounted on the body side at approximate seat level height and located just to the rear of the entrance door on the right side of the body and approximately the same location on the left side. They are to be connected to and function with the regular

turn signal lamps. Such lamps shall provide 180° angle vision and if painted, they shall be black.

- b. Exception: Type A – Turn signals shall be chassis manufacturer’s standard.
7. Hazard warning signal. The turn signal units shall also function as the hazard warning system. The system shall operate independently of the ignition switch and, when energized, shall cause all turn signal lamps to flash simultaneously.
8. Reflex reflectors. (Class A) Two amber lights and two amber reflectors (they may be combined) shall be mounted, one on each side, near the front of the chassis. Two three-inch red reflectors shall be mounted, one on each side near the rear of the body and two three-inch red reflectors shall be mounted on the rear above the bumper. Two intermediate amber three-inch reflectors, one on each side near the middle of the bus, shall be mounted on buses 30 feet or more in length. They shall be mounted in accordance with FMVSS 108 (*Lamps, Reflective Devices, and Associated Equipment*).
9. School bus traffic warning lights.
 - a. A non-sequential system for the traffic warning lights shall be installed that allow the red traffic warning lights to activate when the door opens. When doors close all lights shall immediately deactivate.
 - b. Buses shall be equipped with four red lights and four amber lights. One amber light shall be located near each red light, at the same level, but closer to the vertical centerline of the bus. All lights shall comply with SAE standards for school bus warning lamps.
 - c. The traffic warning light system shall be wired so that the amber lights are activated manually by a hand operated switch. When door is opened, amber lights will automatically deactivate and red traffic warning lights, warning sign with flashing lights and crossing control arm shall be activated. When door is closed, all lights shall be deactivated. There shall be a rocker style momentary switch that when depressed and released deactivates the red traffic warning lights, crossing arm and stop arm. The driver need not depress or reactivate the switch in any way for the continued operation of the non-sequential system. This feature will allow for railroad crossing operations and momentary deactivation in the case that the lights are

activated and no stops need to be made. There shall also be a control switch that would allow for deactivation of this feature during maintenance operation. These switches shall be labeled according to their functions and shall meet standards of FMVSS 101 (*Controls and Displays*).

- d. The control circuit shall be connected to the cold side of the ignition switch with the master push button cancel switch mounted on the accessory console, clearly distinguished, visible and accessible to the driver.
- e. The flasher and the relay shall be fastened in a compartment in the driver area and be easily accessible for servicing. The location of the flasher shall be approved by the Department of Education.
- f. System shall contain an amber pilot light for amber lamps and a red pilot light for red lamps, clearly visible to the driver, to indicate when system is activated.
- g. A black border 1 ¼ to 3 inches wide shall be painted around the lights and must be equipped with a black painted hooded housing.
- h. All electrical connections shall be soldered or connected by an acceptable SAE method.
- i. All switches and pilot lights shall be properly identified by labels.
- j. There shall be an interrupt feature in the system to interrupt the traffic warning sign and the crossing control arm when their use is not desired. This feature shall consist of a double throw relay and a momentary switch.
- k. Manual switch, cancel switch and interrupt switch shall be momentary switches.
- l. There shall be no controls and/or switches located in the steering wheel for operation of any system except controls and/or switches of the horn or optional cruise control. All controls and/or switches shall be labeled according to their function and shall meet the standards of FMVSS 101 (*Controls and Displays*).
- m. Option: Additional side-mounting warning lights for school divisions approved for participation in the Board of Education's approved pilot program. Additional warning

lights may be mounted on the front sides of the school bus above the entrance door and the driver's window. Lights shall work in conjunction with the standard warning light system and shall meet FMVSS and SAE standards or must be of a type approved by the Department of State Police.

Optional Equipment

- a. Fog lights – Must be mounted by the manufacturer, meet FMVSS requirements and comply with Virginia Code.
10. School bus traffic warning sign must conform to FMVSS 131 (*School Bus Pedestrian Safety Devices*).
- a. Warning sign shall be mounted on the left side near the front of the bus immediately below the window line.
 - b. Sign shall be of the octagon series, 18 inches in diameter, and be equipped with wind guard. The sign shall have a red background with a ½ inch white border, and the word “STOP” on both sides in white letters, six inches high and one inch wide. The sign shall be reflective.
 - c. Sign shall have double-faced alternately flashing red lights, four inches in diameter, located at the top and bottom most portions of the sign, one above the other.
 - d. The sign shall be connected and energized through the red traffic warning lamps.
 - e. Air operated signs require air pressure regulator in addition to control valve. Source of supply shall be the main air tank with a pressure protection valve at the tank.
 - f. Sign and components shall comply with all provisions of SAEJ 1133.
 - g. A second school bus traffic warning sign on the left side near the rear of the bus, may be mounted on all 64, or larger sized passenger Type C and D school buses.
11. School Bus Crossing Control Arm.
- a. An approved crossing control arm shall be mounted on the right end of the front bumper with mounting brackets appropriate for the bumper configuration.

- b. The arm shall be activated in conjunction with the traffic warning sign.
- c. The arm when in the stored position shall have a magnetic or other suitable latch to secure the arm against the bumper.
- d. Source of supply for air-operated arms shall be the main air supply tank with pressure protection valve at tank.
- e. Appropriate grommets or a loom shall be used where wires or tubes go through holes in bumper and firewall.

12. Strobe Warning Light.

Each bus shall be equipped with a white flashing strobe light meeting the following requirements:

- 1. Shall have self-contained power supply.
- 2. Construction: Base shall be Lexan™ or other polycarbonate or corrosion resistant metallic material. Lens shall be clear Lexan™ or other polycarbonate material or equal or better strength, resilience, and durability. Unit shall be sealed to protect against intrusion of dust and moisture. All external fasteners including mounting screws shall be stainless steel. Unit shall have mounting gasket to isolate the light assembly from vibration.
- 3. Electrical characteristics: Shall have a flash energy of minimum 8 joules. Shall have 80 (plus or minus 10) single or double flashes per minute. Shall have integral fuse or circuit breaker protection and reverse polarity protection. Maximum current draw shall be 2 amperes at 12 volts.
- 4. Dimensions and location: Overall height of unit shall be approximately 4 inches to 6 inches, with lens diameter approximately 4 inches to 6 inches. Mounting location is to be centered (laterally) on roof of bus, approximately 48 inches (longitudinally) from rear edge of rear roof cap.
- 5. SAE specifications: Shall meet SAE J575 and J1318.

6. Body circuitry: Shall include a separate, clearly labeled driver's panel mounted switch, with a clearly labeled pilot light.

56. Metal Treatment.

- A. All metal parts that will be painted shall be chemically cleaned, etched, zinc-phosphate-coated, and zinc-chromate or epoxy-primed or conditioned by equivalent process.

57. Mirrors.

- A. Interior rear view mirror at least 6 x 30 inches, metal encased safety glass of at least 1/8 inch thickness, which will afford good view of pupils and roadway to rear and shall be installed in such a way that vibration will be reduced to a minimum. It shall have rounded corners and protected edges.
- B. Exception: Type A - Interior mirror to be 6 x 16 inches.
- C. All buses shall have a mirror system that conforms to FMVSS 111 (*Rearview Mirrors*), 49 CFR § 271.111 as amended.
- D. Thermostatically controlled heated exterior mirrors are permissible.
- E. Motorized exterior mirrors may be used.

58. Mounting.

- A. Chassis frame shall extend to rear edge of rear body cross member. Bus body shall be attached to chassis frame in such manner as to prevent shifting or separation of body from chassis under severe operating conditions.
- B. Body front shall be attached and sealed to chassis cowl in such manner as to prevent entry of water, dust, and fumes through joint between chassis cowl and body.
- C. Insulating material shall be placed at all contact points between body and chassis frame on Types A, B, C and D buses. Insulating material shall be approximately 1/4 inch thick and shall be so attached to chassis frame or body member that it will not move under severe operating conditions.

59. Openings.

- A. Any openings in body or front fenders of chassis resulting from change necessary to furnish required components shall be sealed. (See Item 22 and Item 40i and Item 41j.)

60. Overall Length.

- A. Overall length of bus shall not exceed 40 feet when measured from bumper to bumper.

61. Overall Width.

- A. Overall width of bus shall not exceed 100 inches, including traffic-warning sign in closed position. Outside rearview mirrors are excluded.

62. Rub Rails.

- A. There shall be one rub rail located on each side of the bus at seat cushion level which extends from the rear side of the entrance door completely around the bus body (except the emergency door or any maintenance access door) to the point of curvature near the outside cowl on the left side, or to the front corner of the bus body.
- B. There shall be one additional rub rail located on each side at, or no more than 10 inches above, the floor line. The rub rail shall cover the same longitudinal area as the upper rub rail, except at the wheel housings, and it shall extend only to the radii of the right and left rear corners.
- C. Both rub rails shall be attached at each body post and at all other upright structural members.
- D. Each rub rail shall be four inches or more in width in their finished form, shall be constructed of 16-gauge steel or suitable material of equivalent strength and shall be constructed in corrugated or ribbed fashion.
- E. Both rub rails shall be applied outside the body or outside body posts. (Pressed-in or snap-on rub rails do not satisfy this requirement.) For Type A-1 vehicles using the body provided by the chassis manufacturer or for types A-2, B, C and D using the rear engine compartment, rub rails need not extend around the rear corners.
- F. There shall be a rub rail or equivalent bracing located horizontally at the bottom edge of the body side skirts.

63. Seat Belt for Driver.

- A. A locking retractor type 2-lap belt/shoulder harness seat belt shall be provided for the driver. Each belt section shall be booted so as to keep the buckle and button-type latch off the floor and within easy reach of the driver. Belt shall be anchored in such a manner or guided at the seat frame so as to prevent the driver from sliding sideways from under the belt.

64. Seats.

- A. All seats shall have minimum depth of 14 inches.
- B. In determining seating capacity of bus, allowable average rump width shall be 13 inches. (See Item 36.)
- C. All seats shall conform to FMVSS 222 (*School Bus Passenger Seating and Crash Protection*).
- D. Seating plans for buses with wheelchair positions, see Item 92A. All school bus seating shall be of a three (3) to three (3) arrangement with the exception of the last row seat to the left of any rear emergency door. This seat shall be of a maximum width of 26" limiting it to two (2) passengers. There shall be provided a full width barrier in front of each seating position. Type D, Rear engine buses shall be exempt from the last row requirements.

Exception – Type A – 16 passenger may have two (2) to two (2) seating arrangement, with 30 inch seats.
- E. Floor track seat securement may be used.
- F. Passenger seat cushion retention system shall be employed to prevent passenger seat cushions from disengaging from seat frames in event of accident. Each seat cushion retention system shall be capable of withstanding vertical static load equal to minimum of five times weight of cushion. System shall also be capable of withstanding forward or rearward static load equal to 20 times weight of cushion.
- G. No bus shall be equipped with jump seats or portable seats.
- H. Seat spacing shall meet FMVSS 222 (*School Bus Passenger Seating and Crash Protection*).
- I. Seat and back cushions of all seats shall be designed to safely support designated number of passengers under normal road conditions encountered in school bus service. Covering of seat cushions shall be of material having 42 ounce finished weight, 54-inch width, and finished vinyl coating of 1.06 broken twill. Material on polyester drill and polyester cotton twill knit backing with equal vinyl coating which meets or exceeds the laboratory test results for the 42 ounce 1.06 covering may be used. Padding and veering on all seats shall comply with provisions of FMVSS 302 (*Flammability of Interior Materials*), 49 CFR § 571.302.
- J. Minimum distance between steering wheel and backrest of driver's seat shall be 11 inches. Driver's seat shall have fore-and-aft adjustment of not

less than four inches and up and down adjustment of three inches. It shall be manually adjustable and strongly attached to floor.

- K. Minimum of 36-inch headroom for sitting position above top of undepressed cushion line of all seats shall be provided. Measurement shall be made vertically not more than seven inches from sidewall at cushion height and at fore-and-aft center of cushion.
- L. Backs of all seats of similar size shall be of same width at top and of same height from floor and shall slant at same angle with floor.
- M. Seat back heights shall be between 24 and 27 inches measured from cushion level.

Exception: Seats with optional child safety restraining systems shall comply with FMVSS 222 (*School Bus Passenger Seating and Crash Protection*).

65. Barrier.

- A. A padded barrier shall be installed at rear of driver's seat in such a position as not to interfere with adjustment of driver's seat.
- B. A padded barrier shall be installed at rear of entrance step well. Barrier to coincide with length of the right front seat cushion with minimum width of 26 inches and shall have a modesty panel to extend from bottom of barrier to floor.

66. Steps.

- A. First step at service door shall be not less than 10 inches and not more than 16 inches from ground, based on standard chassis specifications.
- B. Service door entrance may be equipped with two-step or three-step step well. Risers in each case shall be approximately equal.
- C. Steps shall be enclosed to prevent accumulation of ice and snow.
- D. Steps shall not protrude beyond side bodyline.
- E. Grab handle not less than 20 inches in length shall be provided in unobstructed location inside doorway, but shall not be attached so that it will interfere with the opening of the glove compartment door. This handle shall be designed to eliminate exposed ends that would catch passenger clothing and shall be so placed in a position to aid small children entering the bus.

- F. Step covering. All steps, including the floor line platform area, shall be covered with an elastomer floor covering having a minimum overall thickness of 0.187 inch.
1. The step covering shall be permanently bonded to a durable backing material that is resistant to corrosion.
 2. Steps, including the floor line platform area, shall have a 1 ½ inch nosing that contrasts in color by at least 70% measured in accordance with the contrasting color specification in 36 CFR, Part 1192, ADA, *Accessibility Guidelines for Transportation Vehicles*.
 3. Step treads shall have the following characteristics:
 - a. Abrasion resistance: Step tread material weight loss shall not exceed 0.40 percent, as tested under ASTM D-4060, *Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser*, (CS-17 Wheel, 1000 gram, 1000 cycle)
 - b. Weathering resistance: Step treads shall not break, crack, or check after ozone exposure (7 days at 50 phm at 40 degrees C) and Weatherometer exposure (ASTEM D-750, Standard Test method for Rubber Deterioration in Carbon-Arc Weathering Apparatus, 7 days)
 - c. Flame resistance: Step treads shall have a calculated burn rate of .01 or less using the test methods, procedures and formulas listed in FMVSS No. 302 (*Flammability of Interior Materials*).
- G. **There shall be a “no-smoking” sign placed on the first step riser of the entrance step well from the inside of the bus. The letters shall be red in color with a length of 9 ½” inches and lettering height of 1 ¼” inches.**

67. Stirrup Steps.

- A. If the windshield and lamps are not easily accessible from the ground, there may be at least 1 folding stirrup step or recessed foothold installed on each side of the front of the body for easy accessibility for cleaning. There also may be a grab handle installed in conjunction with the step. Steps are permitted in or on the front bumper in lieu of the stirrup steps if the windshield and lamps are easily accessible for cleaning from that position.

68. Storage and Luggage Compartments.

- A. Vehicles may be equipped with luggage compartments or tool compartments in the body skirt provided they do not reduce ground clearance to less than 14 ½ inches from bottom of compartment and that the addition of the compartments does not exceed the vehicles' GVWR.
- B. **Optional: Drivers storage compartment may be above the driver's area and must not impede ingress and egress. It shall not violate any federal safety standard or the Code of Virginia.**

69. Sun Shield.

- A. Interior adjustable transparent sun shield, darkest shade available, not less than 6 x 30 inches shall be installed in position convenient for use by driver.
- B. Exception: Type A vehicles – Manufacturer's standard is acceptable.

70. Tail Pipe.

- A. Tail pipe shall extend to but not more than 2 inches beyond outer edge of rear bumper. (See Item 13 B.)

71. Trash Container and Hold Device.

- A. When requested or used, the trash container shall be secured by a holding device that is designed to prevent movement and to allow easy removal and replacement. It shall be soft, pliable, and installed in an accessible location in the driver's compartment, not obstructing passenger access to the entrance door.

72. Undercoating.

- A. Entire underside of bus body, including floor sections, cross members, and below floor line side panels, shall be coated with rust-proofing compound for which compound manufacturer has issued notarized certification of compliance to bus body building that compounds meet or exceed all performance requirements of Federal Specification TT-C-520 b using modified test procedures for following requirements:
 - 1. Salt spray resistance – pass test modified to 5.0% salt and 1,000 hours.
 - 2. Abrasion resistance – pass.
 - 3. Fire resistance – pass.

- B. Undercoating compound shall be applied with suitable airless or conventional spray equipment to recommend film thickness and shall show no evidence of voids in cured film. Undercoating is expected to prevent rust under all bus service conditions for minimum of five years.

73. Ventilation and Air Conditioning.

- A. Body shall be equipped with suitable, controlled ventilating system of sufficient capacity to maintain proper quantity of air under operating conditions without opening of windows except in extremely warm weather.
- B. Static-type, non-closable, exhaust roof ventilators shall be installed in low-pressure area of roof panel.
- C. Air conditioning units may be installed on an optional basis. Application requires heavier electrical components and assessment by the Department of Education, on an individual unit basis.
- D. Auxiliary fans shall meet the following requirements:
 - 1. Fans for left and right sides of the windshield shall be placed in a location where they can be adjusted for maximum effectiveness and where they do not obstruct vision to any mirror. Note: Type A buses may be equipped with one fan;
 - 2. Fans shall have 6-inch (nominal) diameter; and
 - 3. Fan blades shall be enclosed in a protective cage. Each fan shall be controlled by a separate switch.

74. Water Test.

- A. Each and every school bus body, after it is mounted on chassis ready for delivery, shall be subjected to a thorough water test in which water under pressure equal to a driving rain is forced against the entire bus body from various directions. Any leaks detected are to be repaired before the bus is declared ready for delivery.

75. Wheel Housings.

- A. Wheel housings shall be of full open type.
- B. Wheel housings shall be designed to support seat and passenger loads and shall be attached to floor sheets in such manner as to prevent any dust or water from entering the body. Wheel housings shall be constructed of 16-gauge (or thicker) steel.

- C. Inside height of wheel housings above floor line shall not exceed 12 inches.
- D. No part of a raised wheel housing shall extend into the emergency door opening.
- E. Wheel housings shall provide clearance for dual wheels as established by National Association of Chain Manufacturers. Mounting of housings in the wheel area must be free of protruding screws and bolts.
- F. Exception: Type A vehicles – Standard does not apply to conversion vans.

76. Windshield and Windows.

- A. All glass in windshield, windows, and doors shall be of approved safety glass, so mounted that permanent mark is visible, and of sufficient quality to prevent distortion of view in any direction. Windshield shall be AS1 and all other glass shall be AS2.
- B. Plastic glazing material of a thickness comparable to AS2 glass, meeting ANSI Standard Z 26.1 and FMVSS 205 (*Glazing Materials*), 49 CFR § 571.205, may be used in side windows behind the driver's compartment.
- C. Windshield shall have horizontal shade band consistent with SAE J-100 or have full tinted glass.
- D. Each full side window shall provide unobstructed emergency opening at least nine inches high and 22 inches wide, obtained either by lowering of window or by use of knock-out type split-sash windows.
- E. Approved tinted glass or plastic glazing material may be used.
- F. Per manufacturer's specifications.

77. Windshield Washers.

- A. Windshield washers meeting federal requirements shall be provided and shall be controlled by a switch accessible to the driver. Reservoir shall be mounted outside passenger compartment.

78. Windshield Wipers.

- A. Bus shall be equipped with variable-speed windshield wipers of air or electric-type powered by a motor or motors of sufficient power to operate wipers.

- B. Blades and arms shall be of such size that minimum blade length will be 12 inches with longer blades being used whenever possible.
- C. The wipers shall meet the requirements of FMVSS 104 (*Windshield Wiping and Washing Systems*).

79. Wiring.

- A. All wiring shall conform to current standards of Society of Automotive Engineers.
- B. Circuits
 - 1. Wiring shall be arranged in at least 12 regular circuits as follows:
 - a. Head, tail, stop (brake) and instrument panel lamps
 - b. Clearance lamps
 - c. Dome and step well lamps
 - d. Starter motor
 - e. Ignition
 - f. Turn-signal units
 - g. Alternately flashing red signal lamps
 - h. Horns
 - i. Heater and defroster
 - j. Emergency door buzzer
 - k. Auxiliary fan
 - l. Booster pump
 - 2. Any of the above combination circuits may be subdivided into additional independent circuits.
 - 3. Whenever possible, all other electrical functions (such as electric-type windshield wipers) shall be provided with independent and properly protected circuits.

4. Each body circuit shall be color coded or numbered and a diagram of the circuits shall be attached to the body in a readily accessible location.
- C. A circuit breaker shall be provided for each circuit except starter motor and ignition circuits.
 - D. A continuous duty solenoid relay operated by the ignition switch, for Circuits i, j, k, and l.
 - E. All wires within body shall be insulated and protected by covering of fibrous loom (or equivalent) that will protect them from external damage and minimize dangers from short circuits. Whenever wires pass through body member, additional protection in form of appropriate type of insert shall be provided.
 - F. All light circuits shall be such as to provide, as nearly as possible, bulb design voltage at light bulb terminals.
 - G. Buses using multiplexed electrical systems may meet the intent of these specifications without the use of specified equipment, subject to the approval of the Department of Education.
 - H. There shall be a manual noise suppression switch installed in the control panel. The switch shall be labeled and alternately colored. This switch shall be an on/off type that deactivates body equipment that produces noise, including, at least, the AM/FM radio, heaters, air conditioners, fans and defrosters. This switch shall not deactivate safety systems, such as windshield wipers or lighting systems.

SPECIFICATIONS FOR ACTIVITY BUSES

80. Activity Buses.

- A. Activity buses shall meet all **Federal Motor Vehicle Safety Standards for school buses and Items 80.B. through 80.F. below.**~~specification standards prescribed for school buses with the following exceptions:~~
(NOTE: Any variation from the specifications, in the form of additional equipment or changes in style of equipment, without prior approval of the DOE, is prohibited.)
- B. Identification.
 1. The activity bus body shall be identified "Activity Bus", lettered 8 inches in height in the front and rear of the vehicle.

2. The name of the school division or individual school shall be lettered in at least 4 inch height in the beltline area.
3. All lettering and numbering shall be painted or be vinyl decals of a contrasting color of the body and conform to FMVSS and Virginia DOE Bus Minimum Specifications, and shall meet all reflectivity standards.
4. No manufacturer or vendor logos, signs or other items not approved in the Virginia DOE Bus Minimum Specifications shall be displayed on the body and/or windows.

C. Color.

1. The activity bus shall not be painted NSBY. The local school division may determine the color of the body of the vehicle and the color scheme may utilize up to 2 colors. This combination may be in addition to a white painted roof. NOTE: The NSBY color shall not be used as a part of any color scheme.

D. Lights and Warning Devices.

1. All activity buses shall meet all state and FMVSS for school bus lighting and warning device requirements with the following exceptions:
 - a. The 8 lamp, traffic warning light system shall not be equipped.
 - b. The flashing lighted stop arm and the crossing control arm shall not be equipped.
 - c. ~~The activity bus transporting school students shall be operated at a safe, legal speed, not in excess of 60 miles per hour.~~

E. Seats.

1. Other types of seats and increased spacing, which meet all regulations of FMVSS 222 (*School Bus Passenger Seating and Crash Protection*) and 302 (*Flammability of Interior Materials*) may be used in lieu of regular school bus seats.
2. Seating on activity buses: Other types of seats and increased spacing may be used provided all provisions of FMVSS 222 (*School Bus Passenger Seating and Crash Protection*), 49 CFR §571.222, are met.

- F. Cruise Control.
 - 1. Optional equipment and shall be used on activity trips and be operated in accordance with regulation speeds.

SPECIFICATIONS FOR WHEELCHAIR LIFT SCHOOL BUSES

81. General Requirements.

- A. School buses or school vehicles designed for transporting children with special transportation needs shall comply with Virginia's standards applicable to school buses and Federal Motor Vehicle Safety Standards as applicable to their GVWR category.
- B. Any school bus that is used for the transportation of children, who are confined to a wheelchair or other restraining devices that prohibit use of the regular service entrance, shall be equipped with a power lift, unless a ramp is needed for unusual circumstances.
- C. Lift shall be located on the right side of the body, in no way attached to the exterior sides of the bus but confined within the perimeter of the school bus body when not extended.

82. Aisles.

- A. All aisles leading to the emergency door from wheelchair area shall be a minimum of 30 inches in width. A wheelchair securement position shall never be located directly in front of (blocking) a power lift door location.

83. Communications.

- A. Special education buses shall be equipped with a two-way communication system. (See Item 39 A.)

84. Fastening Devices.

- A. Unless otherwise specified below, fastening devices shall conform to FMVSS 222 (*School Bus Passenger Seating and Crash Protection*), 49 CFR § 571.222, as amended.
 - 1. Wheelchair fastening devices shall be provided and attached to the floor or walls or both to enable securement of wheelchairs in the vehicle. The devices shall be of the type that requires human intervention to unlatch or disengage. The fastening devices shall be designed to withstand forces up to 3,000 pounds per tie down

leg or clamping mechanism or 12,000 pounds total for each wheelchair.

2. Additional fastening devices may be needed to assist the student due to the many different configurations of chairs and exceptionalities.

85. Heaters.

- A. An additional heater shall be installed in the rear portion of the bus behind wheel wells as required in Item 48 I, except a 50,000 minimum BTU heater may be used in bodies originally designed for 31-66 passenger capacity and 34,000 minimum BTU heater may be used in bodies of 30 passengers or less. Hose to rear heater, when under body shall be encased in metal tube.

86. Identification.

- A. Buses with wheelchair lifts used for transporting children with physical disabilities shall display universal handicapped symbols located on the front and rear of the vehicle below the window line. Such emblems shall be white on blue, shall be a minimum of nine inches and a maximum of 12 inches in size, and shall be of a high-intensity retro reflective material meeting the requirements of Federal Highway Administration (FHWA) FP-85, *Standard Specifications for Construction of Road and Bridges on Federal Highway Projects*. They shall be placed so as not to cover lettering, lamps or glass.

87. Passenger Capacity Rating.

- A. In determining the passenger capacity of a school bus for purposes other than actual passenger load (e.g., vehicle classification or various billing/reimbursement models), any location in a school bus intended for securement of a wheelchair during vehicle operation shall be regarded as four designated seating positions, and each lift area shall count as four designated seating positions.

88. Wheelchair Lift.

- A. The wheelchair lift shall be located on the right side of the bus body. Exception: The lift may be located on the left side of the bus if, and only if, the bus is only used to deliver students to the left side of one-way streets.
 1. A ramp device may be used in lieu of a mechanical lift if the ramp meets all the requirements of the Americans with Disabilities Act (ADA) as found in 36 CFR §1192.23, *Vehicle ramp*.

2. A ramp device that does not meet the specifications of ADA, but does meet the specifications of paragraph C of this section, may be installed and used, when, and only when, a power lift system is not adequate to load and unload students having special and unique needs. A readily accessible ramp may be installed for emergency exit use. If stowed in the passenger compartment, the ramp must be properly secured and placed away from general passenger contact. It must not obstruct or restrict any aisle or exit while in its stowed or deployed position.
3. All specially equipped school buses shall provide a level-change mechanism or boarding device (e.g., lift or ramp), complying with paragraph B or C of this section, with sufficient clearances to permit a wheelchair user to reach a securement location.

B. Vehicle lift and installation.

1. General: Vehicle lifts and installations shall comply with the requirements set forth in FMVSS 403 (*Platform Lift Systems for Motor Vehicles*), and FMVSS 404 (*Platform Lift Installations in Motor Vehicles*).
2. Design loads: The design load of the lift shall be at least 800 pounds. Working parts, such as cables, pulleys and shafts, which can be expected to wear, and upon which the lift depends for support of the load, shall have a safety factor of at least six, based on the ultimate strength of the material. Non-working parts, such as platform, frame and attachment hardware that would not be expected to wear, shall have a safety factor of at least three, based on the ultimate strength of the material.
3. Lift capacity: The lifting mechanism and platform shall be capable of operating effectively with a wheelchair and occupant mass of at least 800 pounds.
4. Controls: (See 49 CFR 571.403, S6.7, *Control systems*.)
5. Emergency operations: (See 49 CFR 571.403, S6.9, *Backup operation*.)
6. Power or equipment failures: (See 49 CFR 571.403, S6.2.2, *Maximum platform velocity*.)
7. Platform barriers: (See 49 CFR 571.403, S6.4.7, *Wheelchair retention*.)
8. Platform surface: (See 49 CFR 571.403, S6.4.2, S6.4.3, *Platform requirements*.)

9. Platform gaps and entrance ramps: (See 49 CFR 571.403, S6.4.4, *Gaps, transitions and openings.*)
10. Platform deflection: (See 49 CFR 571.403, S6.4.5, *Platform deflection.*)
11. Platform movement: (See 49 CFR 571.403, S6.2.3, *Maximum platform acceleration.*)
12. Boarding direction: The lift shall permit both inboard and outboard facing of wheelchair and mobility aid users.
13. Use by standees: Lifts shall accommodate persons who are using walkers, crutches, canes or braces, or who otherwise have difficulty using steps. The platform may be marked to indicate a preferred standing position.
14. Handrails: (See 49 CFR 571.403, S6.4.9, *Handrails.*)
15. Circuit breaker: A re-settable circuit breaker shall be installed between the power source and the lift motor if electrical power is used. It shall be located as close to the power source as possible, but not within the passenger/driver compartment.
16. Excessive pressure: (See 49 CFR 571.403, S6.8, *Jacking prevention.*)
17. Documentation: The following information shall be provided with each vehicle equipped with a lift:
 - a. A phone number where information can be obtained about installation, repair and parts. (Detailed written instructions and parts list shall be available upon request.)
 - b. Detailed instructions regarding use of the lift shall be readily visible when the lift door is open, including a diagram showing the proper placement and positions of wheelchair/mobility aids on the lift.
18. Training materials: The lift manufacturer shall make training materials available to ensure the proper use and maintenance of the lift. These may include instructional videos, classroom curriculum, system test results or other related materials.
19. Identification and certification: Each lift shall be permanently and legibly marked or shall incorporate a non-removable label or tag that states it conforms to all applicable requirements of the current

National School Transportation Specifications and Procedures. In addition and upon request of the original titled purchaser, the lift manufacturer or an authorized representative shall provide a notarized Certificate of Conformance, either original or photocopied, which states that the lift system meets all the applicable requirements of the current National School Transportation Specifications and Procedures.

C. Vehicle ramp

1. If a ramp is used, it shall be of sufficient strength and rigidity to support the special device, occupant and attendant(s). It shall be equipped with a protective flange on each longitudinal side to keep the special device on the ramp.
2. The surface of the ramp shall be constructed of non-skid material.
3. The ramp shall be equipped with handles and shall be of weight and design to permit one person to put the ramp in place and return it to its storage place.
4. Ramps used for emergency evacuation purposes may be installed in raised floor buses by manufacturers. They shall not be installed as a substitute for a lift when a lift is capable of serving the need.

89. Ramps.

- A. When a power lift system is not adequate to load and unload students having special and unique needs, a ramp device may be installed.
1. If a ramp is used, it shall be of sufficient strength and rigidity to support the special device, occupant, and attendants. It shall be equipped with a protective flange on each longitudinal side to keep special device on the ramp.
 2. Floor of ramp shall be of nonskid construction.
 3. Ramp shall be of weight and design, and equipped with handles, to permit one person to put ramp in place and return it to its storage place.

90. Regular Service Entrance.

- A. In Type D vehicles, there shall be three step risers, of equal height, in the entrance well.
- B. An additional foldout step may be provided which will provide for the step level to be no more than six inches from the ground level.

- C. Three step risers in Type C vehicles are optional.

91. Restraining Devices.

- A. Seat frames may be equipped with attachments or devices to which restraining harnesses or other devices may be attached. Attachment framework or anchorage devices, if installed, shall conform to FMVSS 210 (*Seat Belt Assembly Anchorages*), 49 CFR § 571.210, and FMVSS No. 213 (*Child Restraint Systems*).

92. Seating Arrangements.

- A. Flexibility in seat arrangements to accommodate special devices shall be permitted due to the constant changing of passenger requirements. All seating shall meet the requirements of FMVSS 222 (*School Bus Passenger Seating and Crash Protection*).
- B. There shall be a padded barrier forward of any standard seating position and between lift-gate and first seat to rear of lift-gate. A wheelchair position immediately forward of lift-gate shall have a barrier between lift and wheelchair. (See Item 65.)

93. Special Light.

- A. Lights shall be placed inside the bus to sufficiently illuminate lift area and shall be activated from door area. An outside light to be activated when lift door is open and deactivated when lift door is closed is permissible.

94. Special Service Entrance.

- A. Bus bodies may have a special service entrance constructed in the body to accommodate a wheelchair lift for the loading and unloading of passengers.
- B. The opening to accommodate the special service entrance shall be at any convenient point on the right (curb side) of the bus and far enough to the rear to prevent the doors, when open, from obstructing the right front regular service door (excluding a regular front service door lift).
- C. The opening shall not extend below the floor level. Outboard type lifts shall be used.
- D. The opening, with doors open, shall be of sufficient width to allow the passage of wheelchairs. The minimum clear opening through the door and the lift mechanism shall be 30 inches in width.

- E. A drip molding shall be installed above the opening to effectively divert water from entrance.
- F. Entrance shall be of sufficient width and depth to accommodate various mechanical lifts and related accessories as well as the lifting platform.
- G. Doorposts and headers from entrance shall be reinforced sufficiently to provide support and strength equivalent to the areas of the side of the bus not used for service doors.
- H. Special service entrance doors shall be equipped with padding at the top edge of the door opening. Pad shall be at least three inches wide and one inch thick and extend the full width of the door opening.

95. Special Service Entrance Doors.

- A. A single door of a minimum 43 inches may be used.
- B. All doors shall open outwardly.
- C. All doors shall have positive fastening devices approved by Pupil Transportation Services to hold doors in the open position.
- D. All doors shall be weather sealed and on buses with double doors, they shall be so constructed that a flange on the forward door overlaps the edge of the rear door when closed.
- E. When dual doors are provided, the rear door shall have at least a one-point fastening device to the header. The forward mounted door shall have at least three-point fastening devices. One shall be to the header, one to the floor line of the body, and the other shall be into the rear door. These locking devices shall afford maximum safety when the doors are in the closed position. The door and hinge mechanism shall be of a strength that will provide for the same type of use as that of a standard entrance door.
- F. Door materials, panels, and structural strength shall be equivalent to the conventional service and emergency doors. Color, rub rail extensions, lettering and other exterior features shall match adjacent sections of the body.
- G. Each door shall have windows set in a waterproof manner compatible within one inch of the lower line of adjacent sash.
- H. Doors shall be equipped with a device that will actuate a flashing visible signal located in the driver's compartment when doors are not securely closed and ignition is in "on" position. A cluster light "LIFT" is allowed.

- I. A switch shall be installed so that the lifting mechanism will not operate when the lift platform doors are closed.

96. Special Optional Equipment.

- A. Special seats for attendants may be installed on an optional basis. The location, restraints, and so forth shall be assessed and approved on an individual unit basis. All equipment shall be secured properly.

SCHOOL BUS DEFINITIONS

TYPE A:



Type “A” school bus is a conversion ~~bus or body constructed upon a van-type or~~ **utilizing a** cutaway front-section vehicle with a left side driver's door. ~~designed for carrying more than 10 persons.~~ This definition ~~shall~~ includes two classifications: **Type A1**, with a Gross Vehicle Weight Rating (GVWR) ~~less than~~ **14,500 pounds or less**; and **Type A2** with a GVWR greater than 14,500 pounds and less than **or equal to** 21,500 pounds. ~~Both Type A-1 and Type A-2 shall be equipped with dual rear wheels.~~

TYPE B:



Type “B” school bus is constructed utilizing a body on a stripped chassis. ~~with~~ **The** entrance door is behind the front wheels. This definition includes two classifications: **Type B1**, with a GVWR of 10,000 pounds or less, designed for carrying more than 10 persons and **Type B2**, with a GVWR greater than 10,000 pounds. ~~The engine is beneath and/or behind the windshield and beside the driver's seat.~~ **Both Type B-1 and Type B-2 must be equipped with dual rear tires.**

TYPE C:



Type “C” ~~or~~ (“Conventional”) school bus is a body installed upon a flat-back cowl chassis with a hood and fenders. This definition ~~shall~~ includes two classifications: **Type C1**, with a GVWR range of 17,500 pounds and a design seating capacity range from 16 to 30 persons; and **Type C2** with a GVWR of more than 21,500 pounds, designed for carrying more than 30 persons. The engine is in front of the windshield and the entrance door is behind the front wheels. **Both Type C1 and Type C2 must be equipped with dual rear tires.**

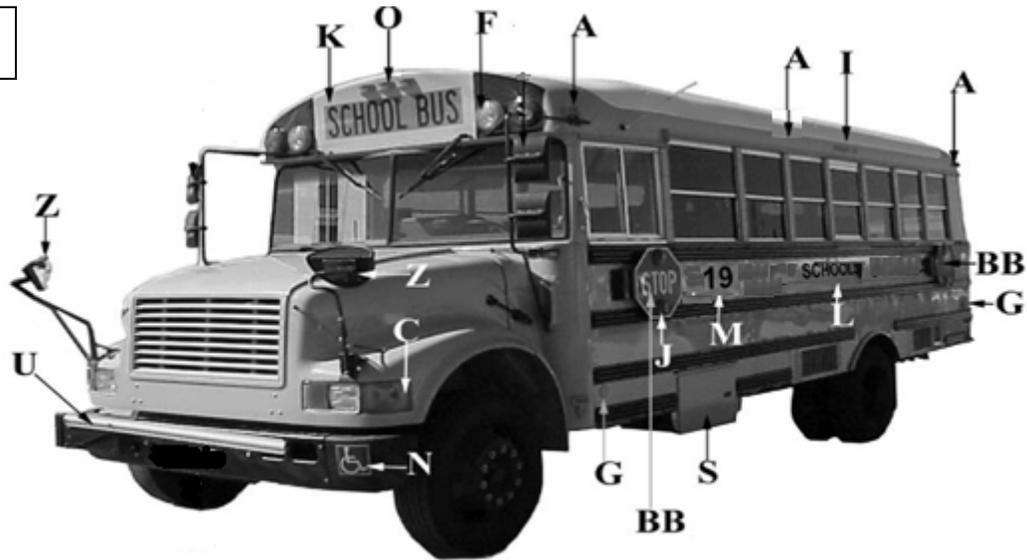
TYPE D:



Type “D” (“Transit”) school bus ~~is a means a bus with a body installed upon constructed using~~ a stripped chassis, with the engine mounted in the front or rear, and has a GVWR of more than 21,500 pounds, designed for carrying more than 10 persons. The engine may be beside the driver's seat (**FE**-front engine) or it may be at the rear of the bus behind the rear wheels (**RE**-rear

~~engine~~). The entrance door is ahead of the front wheels. The bus is also known as a rear engine or front engine transit style school bus.

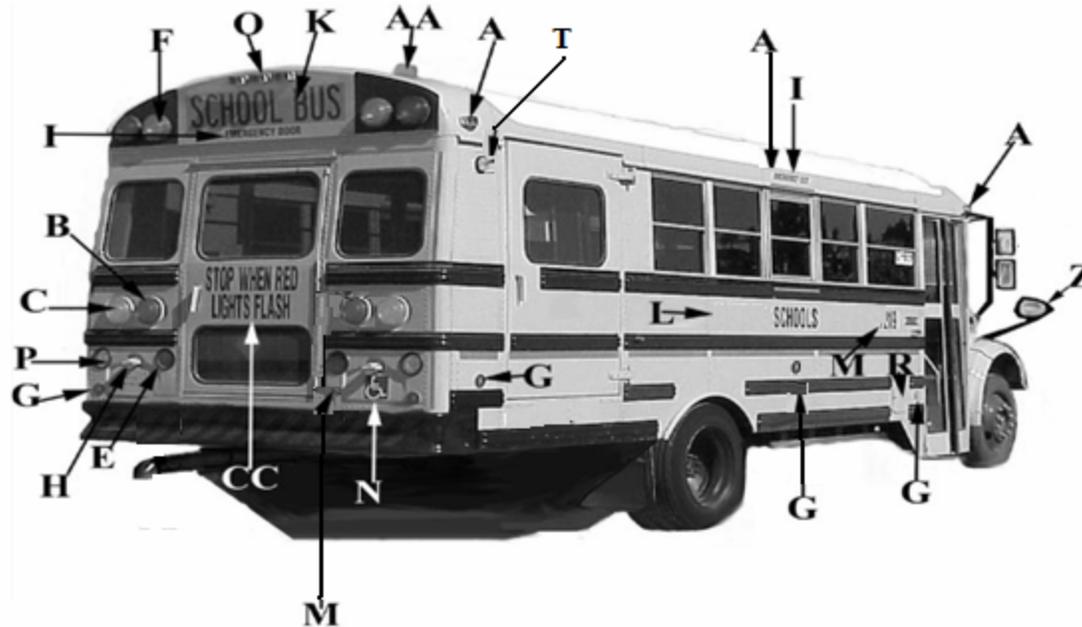
Diagram 1



MINIMUM LETTERING AND LIGHTING REQUIREMENTS

A	Clearance lights (see item 55 A(1))	L	Name of Division (see item 50 A(3))
BB	Octagonal Stop Arm (2 nd optional-see item 55-10(g))	M	Bus Numbers (see item 50 A(2))
C	Front Turn Signals, (amber lenses)	N	Universal Handicapped Symbol, Wheelchair Lift Equipped Buses (see item 86)
F	Pupil Warning Lights, Side By Side Amber and Red, Flat Back Design Quartz Halogen Bulb	O	Identification Lamps
G	Reflectors (see item 55 A(8))	S	Battery Box (see item 50 A (5c))
I	Emergency Exit	U	Pupil Crossing Arm
J	Double Faced Flashing Red Lights	Z	Cross/Side View Mirror System
K	SCHOOL BUS, Front And Rear, 8 inch letters on retroreflective yellow background		

Diagram 2



MINIMUM LETTERING AND LIGHTING REQUIREMENTS

A	Clearance lights (see item 55 A(1))	M	Bus Numbers (see item 50 A(2))
B	Seven inch Tail Lights	N	Universal Handicapped Symbol, Wheelchair Lift Equipped Buses (see item 86)
C	Seven Inch Turn Signals (amber lenses)	O	Identification Lamps
E	4 inch LED Stop / Tail Lights	P	Back-up Lights
F	Pupil Warning Lights, Side By Side Amber and Red, Flat Back Design Quartz Halogen Bulb	R	Fuel Door (see item 50 A(4))
G	Reflectors (see item 55 A(8))	T	Wheelchair Lift Landing Light (see item 93(A))
H	License Plate Lamp	Z	Cross/Side View Mirror System
I	Emergency Exit Signs	AA	Roof-mounted White Flashing Strobe Light
K	SCHOOL BUS, Front And Rear, 8 inch letters on retroreflective yellow background	CC	Rear Door Lettering (optional see item 50 A 5 (e))
L	Name of Division (see item 50 A(3))		

Addendum

Air Conditioning (Optional).

The following specifications are applicable to all types of school buses that may be equipped with air conditioning.

1. Performance Specifications.

The installed air conditioning system should cool the interior of the bus from 100 degrees to 80 degrees Fahrenheit, measured at three points (minimum) located four feet above the floor on the longitudinal centerline of the bus. The three required points shall be: (1) near the driver's location, (2) at the longitudinal midpoint of the body, and (3) two feet forward of the emergency door, or for Type D rear-engine buses, 2 feet forward of the end of the aisle.

The test conditions under which the above performance must be achieved shall consist of (1) placing the bus in a room (such as a paint booth) where ambient temperature can be maintained at 100 degrees Fahrenheit; (2) soaking the bus at 100 degrees Fahrenheit with windows open for at least one hour; and (3) closing windows, turning on the air conditioner with the engine running at the chassis manufacturer's recommended low idle speed, and cooling the interior of the bus to 80 degrees Fahrenheit, or lower, within 30 minutes while maintaining 100 degrees Fahrenheit outside temperature.

Alternately, and at the user's discretion, this test may be performed under actual summer conditions, which consist of temperatures above 85 degrees Fahrenheit, humidity above 50% with normal sun loading of the bus and the engine running at the engine manufacturer's recommended low idle speed. After a minimum of one hour of heat-soaking, the system shall be turned on and must provide a minimum of a 20 degree temperature drop in the 30 minutes time limit.

The manufacturer shall provide facilities for the user or user's representative to confirm that a pilot model of each bus design meets the above performance requirements.

2009 School Bus Type Specifications

NOTICE

These Specifications define certain, but not all, components required on a school bus chassis purchased by public school divisions.

Any variation from the specifications, in the form of additional equipment or changes in style of equipment, without prior approval of the Pupil Transportation Service, Department of Education, is prohibited.

The responsibility for compliance with these school bus specifications rests with dealers and manufacturers. If any dealers or manufacturers sell school bus vehicles that do not conform to any or all of these specifications, a general notice will be sent to all school divisions advising that equipment supplied by such dealer or manufacturer will be disapproved for school transportation until further notice. A copy of the notice will be sent to the dealer or manufacturer and will remain in effect until full compliance by the dealer or manufacturer is assured.

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "A" 16 & 24 PASSENGER CONVENTIONAL

<u>GVWR</u>	10,000 (MINIMUM)
<u>WHEELS</u>	DISC 16 x 6
<u>TIRES</u>	RADIAL FRONT AND DUAL RADIAL REAR – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	PER MANUFACTURER STANDARDS FOR SEVERE SERVICE
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	HEAVY DUTY PAINTED BLACK
<u>FRONT AXLE</u>	GVWR AT GROUND COMMENSURATE WITH FRONT; WEIGHT LOADS THAT WILL BE IMPOSED BY BUS
<u>REAR AXLE</u>	GVWR AT GROUND COMMENSURATE WITH REAR; WEIGHT LOADS THAT WILL BE IMPOSED BY BUS
<u>BRAKES</u>	POWER, WITH ANTI LOCK BRAKE SYSTEM
<u>SUSPENSION</u>	PER MANUFACTURER STANDARDS FOR SEVERE SERVICE
<u>ENGINE</u>	INTERNAL COMBUSTION ELECTRONIC SPEED LIMITER SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	AUTOMATIC W/PARKING PAWL OR APPROVED PARKING BRAKE SYSTEM – MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GREASE FITTINGS ON ALL SHAFTS, GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	PER ENGINE MANUFACTURER SPECIFICATIONS WITH RESTRICTION INDICATOR
<u>OIL FILTER</u>	REPLACEABLE, 1 QUART CAPACITY
<u>BATTERY</u>	600 CCA
<u>ALTERNATOR</u>	130 AMP
<u>HORN</u>	DUAL ELECTRIC
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS

GAUGES

**SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT
TEMP. AND VOLTMETER**

COLOR

**FRAME, WHEELS, BUMPER, RAILS, AND LETTERINGS – BLACK;
BALANCE YELLOW**

1. 16 Passenger Base Bus (Gasoline Engine – must have automatic fire extinguisher system – V8 – Min) Bus offered must have successfully completed a pilot program and approved by the Virginia Department of Education.
2. 16 Passenger Base Bus (Diesel Engine) Bus offered must have successfully completed a pilot program and approved by the Virginia Department of Education.
3. 24 Passenger Base Bus (Gasoline Engine – must have automatic fire extinguisher system – V8 – Min) Bus offered must have successfully completed a pilot program and approved by the Virginia Department of Education.
4. 24 Passenger Base Bus (Diesel Engine) Bus offered must have successfully completed a pilot program and approved by the Virginia Department of Education.

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C" 35 PASSENGER CONVENTIONAL

<u>GVWR</u>	21,000
<u>WHEELS</u>	8-STUD DISC – 22.5" X 6.75"
<u>TIRES</u>	9R22.5 – 42 PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	6,000 LB.
<u>REAR AXLE</u>	15,000 LB.
<u>BRAKES</u>	HYDRAULIC DISC W/ABS (WITH ALLISON 2200 PTS ONLY) – OR -FULL AIR – 13.2 CFM COMPRESSOR – AIR DRYER (5 SPEED DIRECT OR ALLISON 2100 PTS ONLY)
<u>SUSPENSION</u>	FRT. SPRINGS 3,000 LB. EA. @ GRD. REAR SPRINGS 7,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	175 H.P. ELECTRONIC SPEED LIMITER SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	5 SPEED DIRECT, ALLISON 2200 PTS, OR ALLISON 2100 PTS, SEE BRAKES FOR AUTHORIZED CONFIGURATIONS. MEETING VIRGINIA SPECIFICATIONS.
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QUART – PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER , & AIR PRESSURE GAUGE AS REQUIRED
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C1" 16 TO 30 PASSENGER CONVENTIONAL

<u>GVWR</u>	17,500
<u>WHEELS</u>	8-STUD DISC – 19.5" X 6.75"
<u>TIRES</u>	9R22.5 – 12-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	7,000 LB.
<u>REAR AXLE</u>	10,500 LB.
<u>BRAKES</u>	HYDRAULIC DISC W/ABS
<u>SUSPENSION</u>	FRT. SPRINGS 7,000 LB. EA. @ GRD. REAR SPRINGS 10,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	175 H.P. ELECTRONIC SPEED LIMITER SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	5 SPEED DIRECT, ALLISON 1000 PTS, MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QUART – PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP. & VOLTMETER
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 42 PASSENGER ENGINE FRONT

<u>GVWR</u>	27,800
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,800 LB.
<u>REAR AXLE</u>	17,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,400 LB. EA. @ GRD. REAR SPRINGS 8,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS – MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C" 53 PASSENGER CONVENTIONAL

<u>GVWR</u>	25,000
<u>WHEELS</u>	8-STUD DISC – 22.5" X 6.75"
<u>TIRES</u>	9R22.5 – 42 PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	8,000 LB.
<u>REAR AXLE</u>	17,000 LB.
<u>BRAKES</u>	HYDRAULIC DISC W/ABS (WITH ALLISON 2400 ONLY) – OR - FULL AIR – 13.2 CFM COMPRESSOR – AIR DRYER (5 SPEED DIRECT OR ALLISON 2000 ONLY)
<u>SUSPENSION</u>	FRT. SPRINGS 4,000 LB. EA. @ GRD. REAR SPRINGS 8,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	175 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	5 SPEED DIRECT, ALLISON 2200 PTS, OR ALLISON 2100 PTS, SEE BRAKES FOR AUTHORIZED CONFIGURATIONS. MEETING VIRGINIA SPECIFICATIONS.
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE GAUGE AS REQUIRED
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 53 PASSENGER ENGINE FRONT

<u>GVWR</u>	27,800
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,800 LB.
<u>REAR AXLE</u>	17,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,400 LB. EA. @ GRD. REAR SPRINGS 8,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITIER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (see Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C" 65 PASSENGER CONVENTIONAL

<u>GVWR</u>	27,500
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	10R22.5 – 12-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,000 LB.
<u>REAR AXLE</u>	17,500LB.
<u>BRAKES</u>	FULL AIR – 13.2 CF COMPRESSOR –AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,000 LB. EA. @ GRD. REAR SPRINGS 8,750LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	175 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	5 SPEED DIRECT OR ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

**TYPE "C" 65 PASSENGER CONVENTIONAL
HYDRAULIC BRAKE**

<u>GVWR</u>	27,500
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	10R22.5 – 12-PLY - LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,000 LB.
<u>REAR AXLE</u>	17,500LB.
<u>BRAKES</u>	HYDRAULIC DISC W/ABS
<u>SUSPENSION</u>	FRT. SPRINGS 5,000 LB. EA. @ GRD. REAR SPRINGS 8,750LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	175 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2200 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP. & VOLTMETER
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 65 PASSENGER ENGINE FRONT

<u>GVWR</u>	29,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	12,000 LB.
<u>REAR AXLE</u>	17,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,000 LB. EA. @ GRD. REAR SPRINGS 8,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 66 PASSENGER ENGINE REAR

<u>GVWR</u>	29,800
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,800 LB.
<u>REAR AXLE</u>	19,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,400 LB. EA. @ GRD. REAR SPRINGS 9,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 71 PASSENGER ENGINE FRONT

<u>GVWR</u>	29,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	12,000 LB.
<u>REAR AXLE</u>	17,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,000 LB. EA. @ GRD. REAR SPRINGS 8,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C" 71 PASSENGER CONVENTIONAL

<u>GVWR</u>	29,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	10R22.5 – 12-PLY – LOAD RANGE MEETING TRA STANDARDSF OR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,000 LB.
<u>REAR AXLE</u>	19,000LB.
<u>BRAKES</u>	FULL AIR – 13.2 CF COMPRESSOR –AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,000 LB. EA. @ GRD. REAR SPRINGS 9,500LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER , & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 72 PASSENGER ENGINE REAR

<u>GVWR</u>	29,800
<u>WHEELS</u>	10-STUD DISC – 22.5" X 7.5"
<u>TIRES</u>	11R22.5 – 14-PLY– LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,800 LB.
<u>REAR AXLE</u>	19,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,400 LB. EA. @ GRD. REAR SPRINGS 9,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	190 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (see Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 77 PASSENGER ENGINE FRONT

<u>GVWR</u>	32,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 8.25"
<u>TIRES</u>	11R22.5 – 14-PLY LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	13,000 LB.
<u>REAR AXLE</u>	19,000LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,500 LB. EA. @ GRD. REAR SPRINGS 9,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	210 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "C" 77 PASSENGER CONVENTIONAL

<u>GVWR</u>	31,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 8.2.5"
<u>TIRES</u>	11R22.5 – 14 PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	10,000 LB.
<u>REAR AXLE</u>	21,000LB.
<u>BRAKES</u>	FULL AIR – 13.2 CF COMPRESSOR –AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 5,000 LB. EA. @ GRD. REAR SPRINGS 10,500LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	210 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 2500 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK - -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE “D” 78 PASSENGER ENGINE REAR

<u>GVWR</u>	33,000
<u>WHEELS</u>	10-STUD DISC – 22.5” X 7.5”
<u>TIRES</u>	11R22.5 – 14-PLY– LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16” STEEL
<u>FRONT AXLE</u>	12,000 LB.
<u>REAR AXLE</u>	21,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5” X 5” FRT– 16.5” X 7” REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,000 LB. EA. @ GRD. REAR SPRINGS 10,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	210 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 3000 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 83 PASSENGER ENGINE FRONT

<u>GVWR</u>	32,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 8.25"
<u>TIRES</u>	11R22.5 – 14-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	13,000 LB.
<u>REAR AXLE</u>	19,000LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,500 LB. EA. @ GRD. REAR SPRINGS 9,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	210 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60 MPH
<u>TRANSMISSION</u>	ALLISON 3000 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

**MINIMUM SPECIFICATIONS FOR 2009 SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

TYPE "D" 84 PASSENGER ENGINE REAR

<u>GVWR</u>	33,000
<u>WHEELS</u>	10-STUD DISC – 22.5" X 8.25"
<u>TIRES</u>	11R22.5 – 44-PLY – LOAD RANGE MEETING TRA STANDARDS FOR REQUIRED GAWR
<u>FRAME</u>	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
<u>STEERING</u>	POWER – MEETING VIRGINIA SPECIFICATIONS
<u>FRONT BUMPER</u>	3/16" STEEL
<u>FRONT AXLE</u>	12,000 LB.
<u>REAR AXLE</u>	21,000 LB.
<u>BRAKES</u>	FULL AIR– 13.2 CF COMP– 16.5" X 5" FRT– 16.5" X 7" REAR–AIR DRYER
<u>SUSPENSION</u>	FRT. SPRINGS 6,000 LB. EA. @ GRD. REAR SPRINGS 10,500 LB. EA. @ GRD. FRT. AND REAR SHOCK ABSORBERS
<u>ENGINE</u>	210 H.P. ELECTRONIC SPEED LIMITER DEVICE SET TO MAXIMUM OF 60MPH
<u>TRANSMISSION</u>	ALLISON 3000 PTS. MEETING VIRGINIA SPECIFICATIONS
<u>DRIVE SHAFT</u>	GUARDS ON ALL SHAFTS
<u>FUEL TANK</u>	30 GALLON (See Item 16)
<u>AIR CLEANER</u>	DRY ELEMENT TYPE WITH RESTRICTION GAUGE
<u>OIL FILTER</u>	1-QT. PER MANUFACTURER
<u>BATTERY</u>	750CCA
<u>ALTERNATOR</u>	160 AMP 4 GA. CHARGING AND GROUND CIRCUITS
<u>HORN</u>	PER FMVSS
<u>LIGHTS</u>	PER FMVSS AND DAYTIME RUNNING LIGHTS
<u>GAUGES</u>	SPEEDOMETER, TACHOMETER, FUEL, OIL PRESSURE, COOLANT TEMP, VOLTMETER, & AIR PRESSURE
<u>COLOR</u>	FRAME, WHEELS, BUMPER, RAILS AND LETTERING – BLACK - -BACK OF MIRRORS, NON GLOSS BLACK -BALANCE YELLOW

Board of Education Agenda Item

Item: F.

Date: June 19, 2008

Topic: Report on Fees and Charges in the Public School Divisions of Virginia

Presenter: Ms. Anne D. Wescott, Assistant Superintendent for Policy and Communications

Telephone Number: (804) 225-2403

E-Mail Address: Anne.Wescott@doe.virginia.gov

Origin:

Topic presented for information only (no board action required)

Board review required by

State or federal law or regulation

Board of Education regulation

Other: _____

Action requested at this meeting

Action requested at future meeting: _____ (date)

Previous Review/Action:

No previous board review/action

Previous review/action

date _____

action _____

Background Information: At its May 21, 2008 meeting, the Virginia Board of Education received public comments regarding fees that are charged to students in Virginia's public schools. In response to the comments received, the Board requested that the Superintendent of Public Instruction provide additional information at the June 2008 meeting of the Board. In response to this request, Department of Education staff conducted a survey of all Virginia school divisions regarding their student fees and charges.

A survey was developed requesting the following information from school divisions:

- Does the school division charge student fees and charges, such as class dues, instructional fees/charges, fees for consumables or materials, library fees, and fees for voluntary student activities?
- Does the division have policies regarding student fees and charges?

- If fees are charged, does the division have a policy regarding students and families with financial hardships?
 - If so, does the division provide a notice to parents regarding the financial hardship policy?
- Does the division have a policy that addresses payment schedules and the handling of unpaid student fees and charges?

On May 30, 2008, the Superintendent of Public Instruction sent an e-mail to all school divisions requesting that they complete the questionnaire and return it by June 6, 2008. As of June 10, 2008, 83 school divisions had responded. A report analyzing the responses was prepared and is attached.

Summary of Major Elements: The report contains background information regarding the issue of student fees and charges. This background information includes an overview of current Virginia Constitution, Virginia Code and Board of Education requirements, summaries of relevant Attorney General's Opinions and two Superintendent's Memoranda. These documents are included as appendices to the report.

The report also includes findings from the information provided by local school divisions in response to the department's survey. Based on an analysis of the information and data collected by the Department, recommendations for further action were made for the Board's consideration. These recommendations include the revision of the Board's *Rules Governing Fees and Charges*, 8 VAC 20-370-10, which were promulgated in or before 1980. It should be noted that JustChildren filed a petition under the Administrative Process Act requesting that these regulations be revised. Public comment is currently being received on that petition.

Superintendent's Recommendation: The Superintendent of Public Instruction recommends that the Board of Education accept the report.

Impact on Resources: None at this time.

Timetable for Further Review/Action: It is anticipated that no further action will be taken by the Board until the Department of Education begins the regulations revision process.

Report to the Board of Education on Student Fees and Charges

Background

At its May 21, 2008 meeting, the Virginia Board of Education received public comments regarding fees that are charged to students in Virginia's public schools. In response to the comments received, the Board requested that the Superintendent of Public Instruction provide additional information at the June 2008 meeting of the Board. In response to this request, Department of Education staff conducted a survey of all Virginia school divisions regarding their student fees and charges.

On May 30, 2008, the Superintendent of Public Instruction sent a superintendent's e-mail to all school divisions requesting that they complete a short questionnaire and return it by June 6, 2008. The survey asked school divisions the following:

- Does the school division charge student fees and charges, such as class dues, instructional fees/charges, fees for consumables or materials, library fees, and fees for voluntary student activities?
- If yes, does the school division have a schedule of fees and charges? (Please provide a copy of the schedule, if possible.)
- Does the division have policies regarding student fees and charges? Please provide a copy of the schedule, if possible.)
- If fees are charged, does the division have a policy regarding students and families with financial hardships?
 - If so, does the division provide a notice to parents regarding the financial hardship policy? (Please provide a copy of the schedule, if possible.)
- Does the division have a policy that addresses payment schedules and the handling of unpaid student fees and charges? (Please provide a copy of the schedule, if possible.)

As of June 10, 2008, 83 of the 132 local school divisions had responded to the survey for a 63% return rate.

Legal Basis for Fees

[Article VIII, § 1](#) of the Constitution of Virginia requires the General Assembly to “provide for a system of free public elementary and secondary schools for all children of school age throughout the Commonwealth” and to “seek to ensure that an educational program of high quality is established and continually maintained.”

In addition, certain Code of Virginia sections govern the charging of fees in the public schools of Virginia. [Section 22.1-327](#) authorizes the Board of Education to establish fees and methods for collecting them for the public schools. [Section 22.1-6](#) of the Code states that except as provided by Title 22.1 and Board of Education regulations, no fees or charges may be levied against any pupils by any school board. [Section 22.1-251](#) of the Code requires each school board to provide, free of charge, such textbooks and workbooks as required for instruction.

[Section § 22.1-176](#) permits the charging of a fee to a student for his pro rata share of the cost of providing transportation for voluntary extracurricular activities. [Section 22.1-205](#) states that in addition to the fee approved by the Board of Education pursuant to the Appropriation Act for the behind the wheel portion of the driver's education program, the Board of Education may authorize school divisions to assess additional charges to recover program costs that exceed state funds. Both Code sections permit local school divisions to waive such fees for any pupil whose family cannot afford them. Section 22.1-243, effective July 1, 2008, permits local school boards to provide consumable materials, such as workbooks, writing books and drawing books to students free of charge or to charge students a retail price not to exceed seven percent added to the publisher's price but, requires them to develop a policy to ensure that students who cannot afford the consumable materials may receive them at a reduced price or free of charge.

In accordance with the Code, the Board of Education promulgated [Rules Governing Fees and Charges, 8 VAC 20-370-10](#), in approximately 1980. These regulations have not been revised since that time.

Additionally, Opinions of the Attorney General's Office have provided guidance regarding the permissibility of school fees. For example, opinions have concluded that the Virginia Constitutional requirement for a free public school system bars local school boards from imposing fees as a condition of enrollment, but does not prohibit the charging of fees for optional or ancillary services or activities. To that end, an Attorney General's Opinion, 1964-65 Att'y Gen. Ann. Rep. 294, permits local school boards to charge students for the optional rental of school lockers and Opinion 149, issued on November 8, 1991 permits a student parking fee as long as it is approved by the local school board.

However, Attorney General's Opinion 144, issued on January 12, 1982, stated that it was impermissible for a school division to offer students a substance abuse counseling program at a local Substance Abuse Services Agency as an alternative to expulsion and then charge the student the agency's fee. This was seen as a required payment of fees for continued enrollment which is impermissible under the Virginia Constitution. A more recent opinion, dated January 11, 2000, numbered 99-101, found that a school board lacked authority to require parents to pay for a testing and treatment program as a condition of granting excused absences to students who had been suspended for substance abuse. In an opinion dated August 29, 2007, numbered 07-053, the Office of

the Attorney General found that local school boards may not charge for the transportation of students to and from school.

The Code of Virginia sections, Board regulations and two of the Opinions of the Attorney General's Office are all included in the appendices.

While not legal advice in nature, the Superintendent of Public Instruction has sent two informational memoranda to local school divisions, No. 171 on September 3, 1993 and No. 95 on May 13, 1994 regarding the charging of fees. These are also included in the appendices.

Findings

Of the 83 school divisions that responded, 64 reported that they do charge fees. Of the 64 school divisions that responded that they do charge fees:

- 38 reported that they have a schedule of fees and charges
- 51 reported that they have a policy regarding fees and charges
- 20 reported that they have a policy regarding students and families with financial hardships
- 9 reported that they provide a notice to parents regarding the financial hardship policy
- 15 reported that they have a policy that addresses payment schedules and unpaid fees and charges

*See appendices for a breakdown by school division.

The fees and charges differ from school division to school division. Many school divisions reported charging one or more of the following fees:

Assignment books, Agenda books, Journals	Incentives, awards, certificates
Band, choir, show choir (up to \$350.00)	Instructional fees
Band instrument rental	Library
Class dues or fees	Lockers – physical education and hall
Class dues to offset commencement costs	Locks and lock rental

Club dues	Materials
Class T-shirt	Parking
Damaged or lost books	Program costs that exceed state funding
Driver's education – ranging from \$60.00 to \$250.00	Specific course and lab fees
Field trips	Supply fees
Field trips or related educational programs not a required activity	Technology fees
Gym suits	Weekly readers, Virginia Studies Weekly, Scholastic News

These fees are compiled into categories in the appendices of this report.

School division policies also list various penalties for failure to pay fees. Some of these policies include penalties such as:

- Cannot participate in graduation
- Cannot participate in any field trips until fees are paid
- Will not receive new class schedule until fees are paid
- Senior class dues – Optional, but if do not pay them, not allowed to participate in class activities such as, prom or graduation
- Unable to participate in any extra-curricular activities
- Placed on Social Probation.

In order to help in preventing penalties for failure to pay fees, some school divisions have a policy or program whereby parents who cannot pay the fees can pay on an installment plan, or pay less or have the fee or fees waived to enable the student to participate in the activity.

Summary

The difficulty with any survey is that recipients often interpret the words, phrases or questions differently, so their responses may not be exactly comparable. This report is based on the information provided by the school divisions in the surveys and in the schedules and/or policies provided. Since there is no way to determine if all of the school divisions interpreted the questions the same way, the numbers presented in this report may not precisely reflect the activities in all of the school divisions. Rather, this is a snapshot of what could be gleaned from the responses received from the 83 school divisions.

Many school divisions do not have fee schedules and or policies, which make it difficult for parents to know exactly what fees will be charged. In many cases, the fee policies are general and do not provide any concrete information. In addition, the fees may vary in different elementary schools, middle schools, or high schools within the same school division. Further, the majority of school divisions that responded stated they did not have a policy regarding students and families with financial hardship.

A review of the fees that are being charged revealed that many of the fees are permissible. However, it appears that some charges may not be permissible and are in need of further review.

Recommended Next Steps

Based on these findings, the following recommendations are offered to the Board for its consideration:

- Using the data the department has already collected along with additional research, further study should be conducted of the fees that may and may not be charged in Virginia's public schools.
- In 1993 and 1994, Superintendent's Memoranda were issued by the Virginia Department of Education advising local school divisions regarding fees. A new Superintendent's Memorandum should be issued providing guidance to school divisions prior to the beginning of the 2008-2009 school year.
- The *Regulations Governing Fees and Charges*, 8 VAC 20-370-10 should be reviewed and revised.

APPENDICES

General Survey Response Statistics.....	Appendix I
Summary of Responses.....	Appendix II
General Fee Information.....	Appendix III
Superintendent's E-mail and Survey Instrument.....	Appendix IV
Constitution of Virginia and Code of Virginia.....	Appendix V
Virginia Board of Education Regulations.....	Appendix VI
Attorney General's Opinions.....	Appendix VII

Virginia Department of Education Summary Statistics - Survey of Student Fees For the 2007-2008 School Year	
Number of School Divisions Surveyed:	
	132
Number of Divisions Responding:	
	83
Response Rate:	63%

VIRGINIA DEPARTMENT OF EDUCATION SUMMARY OF SCHOOL DIVISION RESPONSES* TO SURVEY OF FEES FOR 2007-2008 SCHOOL YEAR		
Division Number	Division Name	Responded to Survey (Yes/No)
001	ACCOMACK	Yes
002	ALBEMARLE	No
003	ALLEGHANY	No
004	AMELIA	Yes
005	AMHERST	Yes
006	APPOMATTOX	No
007	ARLINGTON	Yes
008	AUGUSTA	Yes
009	BATH	Yes
010	BEDFORD/BEDFORD CITY	No
011	BLAND	No
012	BOTETOURT	Yes
013	BRUNSWICK	Yes
014	BUCHANAN	Yes
015	BUCKINGHAM	Yes
016	CAMPBELL	Yes
017	CAROLINE	No
018	CARROLL	Yes
019	CHARLES CITY COUNTY	Yes
020	CHARLOTTE	Yes
021	CHESTERFIELD	Yes
022	CLARKE	Yes
023	CRAIG	Yes
024	CULPEPER	No
025	CUMBERLAND	No
026	DICKENSON	Yes
027	DINWIDDIE	No
028	ESSEX	No
029	FAIRFAX/FAIRFAX CITY	No
030	FAUQUIER	Yes

VIRGINIA DEPARTMENT OF EDUCATION SUMMARY OF SCHOOL DIVISION RESPONSES* TO SURVEY OF FEES FOR 2007-2008 SCHOOL YEAR		
Division Number	Division Name	Responded to Survey (Yes/No)
031	FLOYD	Yes
032	FLUVANNA	Yes
033	FRANKLIN	No
034	FREDERICK	No
035	GILES	Yes
036	GLOUCESTER	Yes
037	GOOCHLAND	Yes
038	GRAYSON	Yes
039	GREENE	Yes
040	GREENSVILLE/EMPORIA	Yes
041	HALIFAX	No
042	HANOVER	No
043	HENRICO	No
044	HENRY	Yes
045	HIGHLAND	Yes
046	ISLE OF WIGHT	Yes
048	KING GEORGE	Yes
049	KING AND QUEEN	Yes
050	KING WILLIAM	No
051	LANCASTER	No
052	LEE	No
053	LOUDOUN	No
054	LOUISA	No
055	LUNENBURG	Yes
056	MADISON	Yes
057	MATHEWS	Yes
058	MECKLENBURG	Yes
059	MIDDLESEX	Yes
060	MONTGOMERY	No
062	NELSON	Yes

VIRGINIA DEPARTMENT OF EDUCATION SUMMARY OF SCHOOL DIVISION RESPONSES* TO SURVEY OF FEES FOR 2007-2008 SCHOOL YEAR		
Division Number	Division Name	Responded to Survey (Yes/No)
063	NEW KENT	Yes
065	NORTHAMPTON	No
066	NORTHUMBERLAND	Yes
067	NOTTOWAY	Yes
068	ORANGE	Yes
069	PAGE	Yes
070	PATRICK	Yes
071	PITTSYLVANIA	Yes
072	POWHATAN	No
073	PRINCE EDWARD	No
074	PRINCE GEORGE	Yes
075	PRINCE WILLIAM	No
077	PULASKI	Yes
078	RAPPAHANNOCK	Yes
079	RICHMOND	Yes
080	ROANOKE	Yes
081	ROCKBRIDGE	Yes
082	ROCKINGHAM	No
083	RUSSELL	No
084	SCOTT	Yes
085	SHENANDOAH	Yes
086	SMYTH	Yes
087	SOUTHAMPTON	No
088	SPOTSYLVANIA	No
089	STAFFORD	No
090	SURRY	No
091	SUSSEX	Yes
092	TAZEWELL	Yes
093	WARREN	Yes
094	WASHINGTON	Yes

VIRGINIA DEPARTMENT OF EDUCATION SUMMARY OF SCHOOL DIVISION RESPONSES* TO SURVEY OF FEES FOR 2007-2008 SCHOOL YEAR		
Division Number	Division Name	Responded to Survey (Yes/No)
095	WESTMORELAND	Yes
096	WISE	No
097	WYTHE	Yes
098	YORK	Yes
101	ALEXANDRIA CITY	No
102	BRISTOL CITY	Yes
103	BUENA VISTA CITY	No
104	CHARLOTTESVILLE CITY	Yes
106	COLONIAL HEIGHTS CITY	Yes
107	COVINGTON CITY	Yes
108	DANVILLE CITY	No
109	FALLS CHURCH CITY	Yes
110	FREDERICKSBURG CITY	Yes
111	GALAX CITY	Yes
112	HAMPTON CITY	Yes
113	HARRISONBURG CITY	No
114	HOPEWELL CITY	Yes
115	LYNCHBURG CITY	Yes
116	MARTINSVILLE CITY	Yes
117	NEWPORT NEWS CITY	Yes
118	NORFOLK CITY	Yes
119	NORTON CITY	No
120	PETERSBURG CITY	No
121	PORTSMOUTH CITY	Yes
122	RADFORD CITY	Yes
123	RICHMOND CITY	No
124	ROANOKE CITY	Yes
126	STAUNTON CITY	Yes
127	SUFFOLK CITY	No
128	VIRGINIA BEACH CITY	Yes

VIRGINIA DEPARTMENT OF EDUCATION SUMMARY OF SCHOOL DIVISION RESPONSES* TO SURVEY OF FEES FOR 2007-2008 SCHOOL YEAR		
Division Number	Division Name	Responded to Survey (Yes/No)
130	WAYNESBORO CITY	Yes
131	WILLIAMSBURG	No
132	WINCHESTER CITY	No
135	FRANKLIN CITY	Yes
136	CHESAPEAKE CITY	No
137	LEXINGTON CITY	No
139	SALEM CITY	Yes
142	POQUOSON CITY	No
143	MANASSAS CITY	No
144	MANASSAS PARK CITY	No
202	COLONIAL BEACH	No
207	WEST POINT	Yes

*As of June 10, 2008

Virginia Department of Education Response to Survey Questions Fee Survey for the 2007-2008 School Year		
	Number of Divisions Answering Yes	Number of Divisions Answering No
Survey Question 1: Does your school division charge student fees and charges?	64	19
Survey Question 2: If the school divisions answered Yes to question 1, Does the division have a schedule of student fees and charges?	38	26
Survey Question 3: If the divisions answered Yes to question 1, does the division have policies regarding student fees and charges?	51	12
Survey Question 4: If the division answered Yes to question 1, does the division have a policy regarding students and families with financial hardships?	20	44
Of those divisions responding Yes, does the division provide a notice to parents regarding the financial hardship policy?	9	11
Survey Question 5: If the division answered Yes to question 1, does the division have a policy that addresses payment schedules and the handling of unpaid student fees and charges?	15	49

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
001	ACCOMACK	Yes	No	No	No		No
002	ALBEMARLE	No Response					
003	ALLEGHANY	No Response					
004	AMELIA	Yes	No	Yes	Yes	No	No
005	AMHERST	Yes	Yes	Yes	No		No
006	APPOMATTOX	No Response					
007	ARLINGTON	Yes	Yes	Yes	Yes	Yes	Yes
008	AUGUSTA	Yes	Yes	Yes	Yes	Yes	Yes
009	BATH	Yes	No	Yes	No		No
010	BEDFORD AND BEDFORD CITY	No Response					
011	BLAND	No Response					
012	BOTETOURT	Yes	Yes	Yes	No		No
013	BRUNSWICK	Yes	No	Yes	No		Yes
014	BUCHANAN	No					
015	BUCKINGHAM	Yes	No	Yes	No		No
016	CAMPBELL	Yes	No	Yes	Yes	Yes	Yes
017	CAROLINE	No Response					
018	CARROLL	Yes	Yes	Yes	No		No
019	CHARLES CITY COUNTY	Yes	No	Yes	No		No
020	CHARLOTTE	Yes	Yes	Yes	No		No
021	CHESTERFIELD	Yes	Yes	Yes	Yes	No	No
022	CLARKE	Yes	No	No	Yes	No	No
023	CRAIG	No					
024	CULPEPER	No Response					

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
025	CUMBERLAND	No Response					
026	DICKENSON	Yes	No	Yes	Yes	Yes	No
027	DINWIDDIE	No Response					
028	ESSEX	No Response					
029	FAIRFAX AND FAIRFAX CITY	No Response					
030	FAUQUIER	Yes	Yes	Yes	Yes	Yes	Yes
031	FLOYD	No					
032	FLUVANNA	Yes	Yes		No		Yes
033	FRANKLIN	No Response					
034	FREDERICK	No Response					
035	GILES	Yes	Yes	Yes	No		No
036	GLOUCESTER	Yes	Yes	No	No		No
037	GOOCHLAND	Yes	Yes	Yes	No		No
038	GRAYSON	Yes	No	Yes	No		No
039	GREENE	Yes	Yes	Yes	No		No
040	GREENSVILLE AND EMPORIA	Yes	No	Yes	No		No
041	HALIFAX	No Response					
042	HANOVER	No Response					
043	HENRICO	No Response					
044	HENRY	Yes	No	Yes	No		No
045	HIGHLAND	No					
046	ISLE OF WIGHT	Yes	No	Yes	No		No
048	KING GEORGE	No					
049	KING AND QUEEN	No					

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
050	KING WILLIAM						No Response
051	LANCASTER						No Response
052	LEE						No Response
053	LOUDOUN						No Response
054	LOUISA						No Response
055	LUNENBURG	Yes	Yes	Yes	No		Yes
056	MADISON	No					
057	MATHEWS	Yes	Yes	No	No		No
058	MECKLENBURG	Yes	Yes	Yes	No		No
059	MIDDLESEX	Yes	Yes	Yes	Yes	No	No
060	MONTGOMERY						No Response
062	NELSON	Yes	Yes	Yes	No		No
063	NEW KENT	Yes	Yes	Yes	No		No
065	NORTHAMPTON						No Response
066	NORTHUMBERLAND	Yes	Yes	Yes	No		No
067	NOTTOWAY	Yes	Yes	Yes	No		Yes
068	ORANGE	Yes	No	No	No		No
069	PAGE	No					
070	PATRICK	No					
071	PITTSYLVANIA	Yes	Yes	Yes	No		No
072	POWHATAN						No Response
073	PRINCE EDWARD						No Response
074	PRINCE GEORGE	Yes	No	No	Yes	No	No
075	PRINCE WILLIAM						No Response

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
077	PULASKI	Yes	No	Yes	No		No
078	RAPPAHANNOCK	No					
079	RICHMOND	Yes	Yes	Yes	No		No
080	ROANOKE	Yes	No	Yes	Yes	No	No
081	ROCKBRIDGE	Yes	No	No	Yes	Yes	No
082	ROCKINGHAM	No Response					
083	RUSSELL	No Response					
084	SCOTT	No					
085	SHENANDOAH	No					
086	SMYTH	Yes	Yes	No	No		No
087	SOUTHAMPTON	No Response					
088	SPOTSYLVANIA	No Response					
089	STAFFORD	No Response					
090	SURRY	No Response					
091	SUSSEX	No					
092	TAZEWELL	Yes	Yes	Yes	Yes	No	Yes
093	WARREN	Yes	Yes	Yes	No		No
094	WASHINGTON	Yes	Yes	Yes	Yes	No	Yes
095	WESTMORELAND	No					
096	WISE	No Response					
097	WYTHE	Yes	No	Yes	No		No
098	YORK	Yes	Yes	Yes	Yes	No	No
101	ALEXANDRIA CITY	No Response					
102	BRISTOL CITY	No					

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
103	BUENA VISTA CITY						No Response
104	CHARLOTTESVILLE CITY	Yes	No	Yes	Yes	Yes	Yes
106	COLONIAL HEIGHTS CITY	Yes	No	Yes	No		No
107	COVINGTON CITY	Yes	No	No	No		No
108	DANVILLE CITY						No Response
109	FALLS CHURCH CITY	Yes	No	Yes	Yes	No	No
110	FREDERICKSBURG CITY	Yes	Yes	Yes	No		No
111	GALAX CITY	No					
112	HAMPTON CITY	Yes	No	No	No		No
113	HARRISONBURG CITY						No Response
114	HOPEWELL CITY	No					
115	LYNCHBURG CITY	No					
116	MARTINSVILLE CITY	Yes	No	Yes	Yes	Yes	No
117	NEWPORT NEWS CITY	Yes	Yes	Yes	Yes	Yes	No
118	NORFOLK CITY	Yes	Yes	Yes	No		Yes
119	NORTON CITY						No Response
120	PETERSBURG CITY						No Response
121	PORTSMOUTH CITY	Yes	No	Yes	No		No
122	RADFORD CITY	No					
123	RICHMOND CITY						No Response
124	ROANOKE CITY	Yes	Yes	Yes	No		Yes
126	STAUNTON CITY	Yes	Yes	Yes	No		No
127	SUFFOLK CITY						No Response
128	VIRGINIA BEACH CITY	Yes	Yes	Yes	No		Yes

**VIRGINIA DEPARTMENT OF EDUCATION
SUMMARY OF RESPONSES TO FEE SURVEY QUESTIONS
FOR THE 2007-2008 SCHOOL YEAR**

DIV	Division	DIVISION CHARGES STUDENT FEES/CHARGES (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A SCHEDULE OF FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICIES REGARDING FEES AND CHARGES? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY REGARDING STUDENTS AND FAMILIES WITH FINANCIAL HARDSHIP? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION PROVIDE A NOTICE TO PARENTS REGARDING THE FINANCIAL HARDSHIP POLICY? (YES/NO)	IF FEES AND CHARGES LEVIED, DOES THE DIVISION HAVE A POLICY THAT ADDRESSES PAYMENT SCHEDULES AND THE HANDLING OF UNPAID STUDENT FEES AND CHARGES? (YES/NO)
130	WAYNESBORO CITY	Yes	Yes	No	No		No
131	WILLIAMSBURG-JAMES CITY COUNTY	No Response					
132	WINCHESTER CITY	No Response					
135	FRANKLIN CITY	Yes	Yes	No	No		No
136	CHESAPEAKE CITY	No Response					
137	LEXINGTON CITY	No Response					
139	SALEM CITY	Yes	Yes	Yes	Yes	No	Yes
142	POQUOSON CITY	No Response					
143	MANASSAS CITY	No Response					
144	MANASSAS PARK CITY	No Response					
202	COLONIAL BEACH	No Response					
207	WEST POINT	Yes	Yes	Yes	No		No

Virginia Department of Education Fees Schedule Information - 2007-2008 School Year Summary of Fee Categories	
General Category of Fee	Number of Divisions with Reported Fee/Charge in this Area
Art	17
Supplies	6
Technology	12
Magazine, Journal, Activity and Assignment Books	11
Laboratory	7
Exploratory	6
Career & Technical Education	19
Advanced Placement/International Baccalaureate	6
Driver's Education (Behind the Wheel)	25
Locker	18
Parking	23
Class Dues	14
Activity	5
Lost or Damaged Textbooks	64
Club or Organization Dues	9
Physical Education (Locker/Uniform)	21
Music/Band Fees	20
Dual Enrollment	5
Other Miscellaneous*	24

***Charges include, but are not limited to: instructional fees, transcript fees, fees for drama and foreign language, and materials fees. Information derived from fee and charge schedule sent by some of the school divisions responding to the survey.**

APPENDIX IV

Superintendent's E-mail Sent on May 30, 2008

At its May 21-22 meeting, the Board of Education requested that I provide them with information about student fees and charges at the June meeting. In response to the Board's request, I ask you to complete the attached survey and return it, along with electronic copies of your school division's schedule of student fees and charges and policies about student fees and charges, if applicable.

Please send the completed survey and electronic copies of any fee schedules and policies to Policy@doe.virginia.gov not later than Friday, June 6 so that a report can be prepared for the June Board meeting. As this is a very quick turnaround time at an especially busy time of the school year, the survey is very short and easy to complete. Should you need additional information, please contact the Office of Policy at Policy@doe.virginia.gov or (804) 225-2403.

When opening the survey instrument, which is in the form of an Excel worksheet, you must click on the "ENABLE MACROS" button before using the spreadsheet. If you are prompted with a Microsoft Visual Basic error or are unable to enable macros, please follow these steps to ensure that macros are enabled in the spreadsheet:

1. Select the "Tools" menu from the drop-down options at the top of the spreadsheet.
2. Select "Macro"; then select "Security."
3. Set the security level to "Medium." This will give you the option to disable or enable macros.
4. You must exit out of the spreadsheet and Excel and then reopen the file for the macro security changes to take effect.

When you have finished answering the five questions in the survey, please save your Excel file and e-mail it along with all pertinent attachments to the address noted above. Thank you for your assistance.

Your assistance with this request is greatly appreciated.

VIRGINIA DEPARTMENT OF EDUCATION
Survey of Local School Divisions - Student Fees and Charges
For the 2007-2008 School Year
Due June 6, 2008

Please choose your school division from the drop down box below and the survey will automatically populate your school division name and number. After you have made your selection, please answer the questions below and attach any pertinent documentation. When you have completed your survey, please save the Excel file to your computer and e-mail the Excel file and any attachments to the following address: policy@doe.virginia.gov. Should you have any questions, please e-mail this same address or call the Division of Policy and Communications at (804) 225-2403. Thank you for your assistance.

<SELECT DIVISION> ▼

Name of School Division:	
Division Number:	

<p>1. Does your school division charge student fees and charges, such as class dues, instructional fees/charges, fees for consumables or materials, library fees, and fees for voluntary student activities? <u>(PLEASE NOTE: If you answer Yes to this question, please go on to questions 2 through 5. If you answer No to question 1, you have completed the survey and can now e-mail the Excel file to the department following the instructions above.)</u></p>		Yes, please enter the number 1.		No, please enter the number 2.	
---	--	--	--	---	--

<p>2. If you answered Yes to question 1, does your division have a schedule of student fees and charges?</p> <p><small>(If yes, please attach an electronic copy of the student fee and charge schedule when you submit the survey. If possible, please send this version in a format other than Adobe PDF.)</small></p>		Yes, please enter the number 1.		No, please enter the number 2.	
--	--	--	--	---	--

<p>3. If you answered Yes to question 1, does your division have policies regarding student fees and charges?</p> <p><small>(If yes, please attach an electronic copy of all of your policies regarding student fees and charges when you submit the survey. If possible, please send this version in a format other than Adobe PDF.)</small></p>		Yes, please enter the number 1.		No, please enter the number 2.	
---	--	--	--	---	--

<p>4. a) If you answered Yes to question 1, does your division have a policy regarding students and families with financial hardships?</p>		Yes, please enter the number 1.		No, please enter the number 2.	
--	--	--	--	---	--

<p>b) If you answered Yes to question 4 a), does your division provide a notice to parents regarding the financial hardship policy?</p>		Yes, please enter the number 1.		No, please enter the number 2.	
<p><small>(If yes, please ensure that the policy and notice are either 1) included with all of the fees and charges policies requested in questions two or three or 2) included as separate electronic attachments to this survey. If possible, please send any attachments in a format other than Adobe PDF.)</small></p>					

<p>5. If you answered Yes to question 1, does your division have a policy that addresses payment schedules and the handling of unpaid student fees and charges?</p>		Yes, please enter the number 1.		No, please enter the number 2.	
<p><small>(If yes, please ensure that the policy is either 1) included with all of the fees and charges policies requested in questions two or three or 2) included as a separate electronic attachment to this survey. If possible, please send any attachments in a format other than Adobe PDF.)</small></p>					

CONSTITUTION OF VIRGINIA

ARTICLE VIII

Education

Section 1. Public schools of high quality to be maintained.

The General Assembly shall provide for a system of free public elementary and secondary schools for all children of school age throughout the Commonwealth, and shall seek to ensure that an educational program of high quality is established and continually maintained.

CODE OF VIRGINIA

§ [22.1-6](#). Permitted fees and charges.

Except as provided in this title or as permitted by regulation of the Board of Education, no fees or charges may be levied on any pupil by any school board. No pupil's scholastic report card or diploma shall be withheld because of nonpayment of any such fee or charge.

(Code 1950, §§ 22-197, 22-198, 22-199; 1977, c. 204; 1980, c. 559.)

§ [22.1-176](#). Transportation of pupils authorized; when fee may be charged; contributions; regulations of Board of Education.

A. School boards may provide for the transportation of pupils, but nothing herein contained shall be construed as requiring such transportation except as provided in § [22.1-221](#).

B. When a school board provides transportation to pupils for extracurricular activities, other than those covered by an activity fund, which are sponsored by the pupils' school apart from the regular instructional program and which the pupils are not required to attend or participate in, the school board may accept contributions for such transportation or charge each pupil utilizing such transportation a reasonable fee not to exceed his pro rata share of the cost of providing such transportation. A school board may waive such fees for any pupil whose parent or guardian is financially unable to pay them.

C. When a school board provides transportation to pupils for field trips which are a part of the program of the pupils' school or are sponsored by such school, the school board may accept contributions for such transportation.

D. The Board of Education shall promulgate such regulations as shall be in the public interest to effect the intent of this section.

(Code 1950, §§ 22-72.1, 22-97.1; 1954, c. 291; 1956, Ex. Sess., c. 60; 1959, Ex. Sess., c. 79, § 1; 1968, c. 501; 1970, c. 156; 1971, Ex. Sess., c. 161; 1972, c. 86; 1975, cc. 308, 328; 1976, c. 99; 1978, cc. 430, 527; 1980, c. 559.)

§ [22.1-205](#). Driver education programs.

A. The Board of Education shall establish for the public school system a standardized program of driver education in the safe operation of motor vehicles. Such program shall consist of classroom training and behind-the-wheel driver training. However, any student who participates in such a program of driver education shall meet the academic requirements established by the Board, and no student in a course shall be permitted to operate a motor vehicle without a license or permit to do so issued by the Department of Motor Vehicles. The program shall include instruction concerning (i) alcohol and drug abuse, (ii) aggressive driving, (iii) distracted driving, (iv) motorcycle awareness, and (v) organ and tissue donor awareness. Such instruction shall be developed by the Department in cooperation with the Virginia Alcohol Safety Action Program, the Department of Health, and the Department of Mental Health, Mental Retardation and Substance Abuse Services, as appropriate. Such program shall require a minimum number of miles driven during the behind-the-wheel driver training.

B. The Board shall assist school divisions by preparation, publication and distribution of competent driver education instructional materials to ensure a more complete understanding of the responsibilities and duties of motor vehicle operators.

C. Each school board shall determine whether to offer the program of driver education in the safe operation of motor vehicles and, if offered, whether such program shall be an elective or a required course. In addition to the fee approved by the Board of Education pursuant to the appropriation act that allows local school boards to charge a per pupil fee for behind-the-wheel driver education, the Board of Education may authorize a local school board's request to assess a surcharge in order to further recover program costs that exceed state funds distributed through basic aid to school divisions offering driver education programs. Each school board may waive the fee or the surcharge in total or in part for those students it determines cannot pay the fee or surcharge. Only school divisions complying with the standardized program and regulations established by the Board of Education and the provisions of § [46.2-335](#) shall be entitled to participate in the distribution of state funds appropriated for driver education.

D. The actual initial driving instruction shall be conducted, with motor vehicles equipped as may be required by regulation of the Board of Education, on private or public property removed from public highways if practicable; if impracticable, then, at the request of the

school board, the Commonwealth Transportation Board shall designate a suitable section of road near the school to be used for such instruction. Such section of road shall be marked with signs, which the Commonwealth Transportation Board shall supply, giving notice of its use for driving instruction. Such signs shall be removed at the close of the instruction period. No vehicle other than those used for driver training shall be operated between such signs at a speed in excess of 25 miles per hour. Violation of this limit shall be a Class 4 misdemeanor.

E. The Board of Education may, in its discretion, promulgate regulations for the use and certification of paraprofessionals as teaching assistants in the driver education programs of school divisions.

F. The Board of Education shall approve correspondence courses for the classroom training component of driver education. These correspondence courses shall be consistent in quality with instructional programs developed by the Board for classroom training in the public schools. Students completing the correspondence courses for classroom training, who are eligible to take behind-the-wheel driver training, may receive behind-the-wheel driver training (i) from a public school, upon payment of the required fee, if the school division offers behind-the-wheel driver training and space is available, (ii) from a driver training school licensed by the Department of Motor Vehicles, or (iii) in the case of a home schooling parent or guardian instructing his own child who meets the requirements for home school instruction under § [22.1-254.1](#) or subdivision B 1 of § [22.1-254](#), from a behind-the-wheel training course approved by the Board. Nothing herein shall be construed to require any school division to provide behind-the-wheel driver training to nonpublic school students.

(Code 1950, § 22-235.1; 1962, c. 482; 1966, c. 208; 1968, c. 433; 1974, c. 154; 1980, c. 559; 1988, c. 105; 1989, c. 392; 1998, c. 96; 1999, c. 928; 2000, cc. 82, 651; 2001, cc. 659, 665; 2002, cc. 177, 386; 2003, c. 951; 2007, c. 278.)

§ [22.1-251](#). Free textbooks, etc., for eligible children.

Each school board shall provide, free of charge, such textbooks and workbooks required for courses of instruction for each child attending public schools. The cost of furnishing such textbooks and workbooks may be paid from school operating funds or the textbook fund or such other funds as are available. The Board of Education shall promulgate regulations governing these systems.

(Code 1950, §§ 22-72, 22-97; 1954, cc. 289, 291; 1956, Ex. Sess., c. 60; 1959, Ex. Sess., c. 79, § 1; 1966, c. 691; 1968, c. 501; 1970, c. 71; 1971, Ex. Sess., c. 161; 1972, c. 511; 1975, cc. 308, 328; 1980, c. 559; 1993, c. 654.)

§ [22.1-327](#). Fees.

The Board may establish fees and the methods for collecting such fees for schools as it deems necessary to carry out the provisions of this chapter. All fees shall be nonrefundable.

(Code 1950, § 22-330.25; 1970, c. 665; 1977, c. 444; 1980, c. 559; 1988, c. 574; 1993, c. 351.)

VIRGINIA ACTS OF ASSEMBLY -- 2008 SESSION

CHAPTER 663

An Act to amend and reenact §§ 22.1-238, 22.1-239, 22.1-241, 22.1-242, and 22.1-243 of the Code of Virginia and to repeal §§ 22.1-240, 22.1-244 through 22.1-251, and 22.1-253 of the Code of Virginia, relating to textbook purchasing.

[H 354]

Approved March 27, 2008

Be it enacted by the General Assembly of Virginia:

1. That §§ 22.1-238, 22.1-239, 22.1-241, 22.1-242, and 22.1-243 of the Code of Virginia are amended and reenacted as follows:

§ 22.1-238. Approval of textbooks.

A. The Board of Education shall *have the authority to* approve textbooks suitable for use in the public schools and shall have authority to approve instructional aids and materials for use in the public schools. *The Board shall publish a list of all approved textbooks on its website and shall list the publisher and the current lowest wholesale prices of such textbooks.*

B. Any school board may use textbooks not approved by the Board provided the school board selects such books in accordance with regulations promulgated by the Board.

~~B.~~ In approving basal textbooks for reading in kindergarten through first grade, the Board shall report to local school boards those textbooks with a minimum decodability standard based on words that students can correctly read by properly attaching speech sounds to each letter to formulate the word at seventy percent or above for such textbooks.

C. *For the purposes of this chapter, the term "textbook" means print or electronic media for student use that serves as the primary curriculum basis for a grade-level subject or course.*

§ 22.1-239. Basal textbooks.

No textbook approved by the Board for use in the public schools shall be changed until such book has been in use for a period of not less than six years, subject to renewal from one to four years, unless such book becomes obsolete or unless a change would result in a material decrease in price. The Board may, by agreement with the publisher, permit the substitution of a revised edition of any adopted book at the lowest price such revised edition is offered for sale anywhere in the United States. Whenever such book is so changed, the Board of Education may permit the use of the old books for a period of at least three years from the date of such change.

In approving basal textbooks for reading in kindergarten and first grade, the Board shall report to local school boards those textbooks with a minimum decodability standard based on words that students can correctly read by properly attaching speech sounds to each letter to formulate the word at 70 percent or above for such textbooks.

§ 22.1-241. Contracts with publishers.

A. ~~The Board of Education~~ *Local school boards* shall either enter into written term contracts or issue purchase orders on an as-needed basis with publishers of textbooks approved by ~~it~~ *the Board* for use in the public schools. *Such written contracts or purchase orders for textbooks approved by the Board shall be exempt from the Virginia Public Procurement Act (§ 2.2-4300 et seq.).*

~~B.~~ The contract price shall not exceed the lowest wholesale price ~~free on board publisher~~ at which the book or books involved in the contract are currently bid under contract anywhere in the United States. ~~The Board shall stipulate the price at which school boards may sell the book or books, which price shall in no case exceed fifteen percent added to the wholesale price.~~

~~C.~~ If, subsequent to the date of any contract entered into by ~~the Board~~ *a local school board*, the prices of books named in the contract are reduced or the terms of the contract are made more favorable to purchase anywhere in the United States or a special or other edition of any book named in the contract is sold outside of Virginia at a lower price than ~~bid contracted in this~~ *the Commonwealth*, the publisher shall, ~~in the discretion of the Board of Education,~~ grant the same reduction or terms to the ~~Board~~ *local school board* and give the ~~Board~~ *local school board* the option of using such special or other edition adapted for use in Virginia and at the lowest price at which such special edition is sold elsewhere and the contract shall so state.

~~D~~ *B.* The publisher shall furnish sample copies of all books mentioned in the contract with the Board of Education and shall guarantee that the books bid in the contract are equal in all respects to such ~~sample copies.~~ *Contracts and purchase orders with publishers of textbooks approved by the Board shall require the publisher to furnish an electronic file of the textbook in the National Instructional Materials Accessibility Standards (NIMAS) format that will then be deposited in the National Instructional Materials Access Center (NIMAC) from which accessible versions of the particular textbook may be produced for students with print disabilities, as defined in 20 U.S.C. § 1474. Publishers shall deliver the*

NIMAS file of the textbook on or before the date of delivery of the regular text version.

~~E. When such technology is available or by January 1, 1998, whichever is earlier, contracts with publishers of textbooks adopted by the Board shall require the publisher to furnish electronic text from which Braille versions of the particular textbook may be produced.~~

C. Every school board shall order directly from the respective publishers the books needed to supply the public schools in the school division. The publishers shall ship the books to the school board. The purchase price of such books shall be paid directly to the publishers by the school board.

D. With the approval of the local school board and the publisher, any private school within the school division that so requests may purchase from the local school board's contract with the publisher. Such private school shall be fully responsible for ordering, purchasing, and receiving shipments of books to be provided from the publisher pursuant to this section. The local school board shall be immune from any civil liability as a result of a private school purchasing from the local school board's contract.

§ 22.1-242. State Board to adopt regulations.

Each contract made by the Board with the publisher of textbooks shall be accompanied by a bond with good and sufficient surety in the penal sum of not less than \$1,000 nor more than \$20,000. Such bond shall be approved by the Board and shall be conditioned upon the performance by the publisher of all of the terms and conditions of the contract and payment of liquidated damages as provided for in ~~§ 22.1-243~~ and any damage in excess thereof which may be proved to be sustained by reason of the violation of such terms and conditions.

The Board shall adopt regulations governing (i) the purchase of textbooks approved by it for use in the public schools directly from the publishers by school boards and (ii) the distribution of such textbooks for the use by children attending public schools in Virginia.

§ 22.1-243. Distribution of textbooks and consumable materials.

In the case of any misrepresentation of fact in the contract or upon the violation of any of the terms and conditions required by the provisions of this article, the publisher shall, upon the demand of the Board, pay as liquidated damages the sum of \$1,000 to the Commonwealth of Virginia to the credit of the Literary Fund; and, in the case of any such violation, the Board may, in addition, declare the contract null and void.

A. Each school board shall provide, free of charge, such textbooks required for courses of instruction for each child attending public schools.

B. Consumable materials such as workbooks, writing books, and drawing books may be purchased by school boards and either provided to students at no cost or sold to students at a retail price not to exceed seven percent added to the publisher's price. If sold, the local school board shall develop a policy ensuring that workbooks, writing books, and drawing books are furnished to students who are unable to afford them at a reduced price or free of charge.

2. That §§ 22.1-240, 22.1-244 through 22.1-251, and 22.1-253 of the Code of Virginia are repealed.

VIRGINIA BOARD OF EDUCATION REGULATIONS

CHAPTER 370

RULES GOVERNING FEES AND CHARGES

8VAC20-370-10. Fees and charges.

No fees or charges as noted below may be levied on any pupil by any school board unless authorized by the Board of Education; further, no pupils' scholastic report card or diploma shall be withheld because of nonpayment of any such fee or charge.

Fees may be charged for:

1. Class dues;
 2. Voluntary student activities;
 3. Night school classes;
 4. Postgraduate classes;
 5. Summer school;
 6. Rental textbooks;
 7. Musical instruments used in regularly scheduled instructional classes;
- and
8. Library fees.

Nothing in this chapter shall be construed to prohibit the school board of any county, city, or town from making supplies, services, or materials available to pupils at cost. Nor is it a violation to make a charge for a field trip or an educational related program that is not a required activity.

Deposits may be required when return of the item used results in a return of the fees deposited.

This chapter is not intended to cover operations of school stores or other fund raising activities. These activities are covered by opinions of the Attorney General and certain practices which may be approved by auditors.

Statutory Authority

§§[22.1-6](#) and [22.1-16](#) of the Code of Virginia.

Historical Notes

Derived from VR270-01-0036 §1, eff. September 1, 1980.

APPENDIX VII

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EDUCATION
P.O. BOX 2120
RICHMOND, VIRGINIA 23218-2120

SUPTS. MEMO NO. 171
September 3, 1993

INFORMATIONAL

TO: Division Superintendents

FROM: Joseph A. Spagnolo, Jr.
Superintendent of Public Instruction

Edward W. Carr
Deputy Superintendent for Administration

SUBJECT: Instructional Fees

The 1993 Session of the General Assembly passed HB 728 which amended Section 22.1-251 of the Code of Virginia to require school divisions to make textbooks and workbooks available to all students free of charge. The amendment becomes effective on July 1, 1994, provided the General Assembly appropriates funds sufficient to cover the state share of such textbooks and workbooks.

Due to the myriad of arrangements in operation by LEAs to account for textbook purchases, the Department made a survey of all divisions last fall to determine the actual cost of textbooks over the last three years. Based on this information, the Board of Education has included in its biennial budget request, additional funds for the state share of textbook costs. For the current school year, the state payment is based on \$26.73 per pupil. The requested amount for 1994-95 is \$43.45 per pupil.

The deliberations by the General Assembly when this bill was passed centered a great deal around the right of each student to receive a free education in the Commonwealth. It was stated that textbooks and workbooks are fundamental to the education process, and therefore, should be provided at no charge. These discussions led the Board of Education to question the current practice of many

school divisions to charge an "instructional" or "material" fee.

Section 22.1-6 of the Code provides that no fees may be charged unless permitted by the Code or by regulation of the Board of Education. The enumeration of permitted fees and charges contained in the Board regulations contains no mention of "instructional" fees. The Office of the Attorney General has rendered several opinions concerning fees. Those opinions have consistently concluded that under the Virginia Constitution, fees may not be charged as a condition of school enrollment, but may be charged for ancillary or optional services. Several of these opinions are attached for your information.

Based upon the statutes and regulations, school divisions have no authority to charge instructional or material fees in general. Individual fees for art, music, library, parking, gym lockers, etc. do appear to be allowable under the current statutes, regulations, and opinions. While such an opinion may have an adverse effect on some local school board budgets, local school boards should take appropriate action during the budget process for 1994-95 to ensure they are in compliance with the statutes and regulations governing fees and charges.

If you have questions or need additional information, please contact Mrs. Kathryn S. Kitchen, Division Chief, Administrative Support Services, at (804) 225-2025, Or Mrs. June F. Eanes, Budget Director, at (804) 225-2060.

JASJr./EWC/kk
Attachment

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EDUCATION
P.O. BOX 2120
RICHMOND, VIRGINIA 23216-2120

SUPTS. MEMO NO. 95
May 13, 1994

INFORMATIONAL

TO: Division Superintendents

FROM: William C. Boshier, Jr.
Superintendent of Public Instruction

SUBJECT: General School Fees

I have heard from many of you regarding your concerns about funding the local share of the proposed free textbook system and the matter of school fees. Let me address these issues separately. The General Assembly has provided funding for a free textbook system as specified in section 22.1-251 of the Code of Virginia (1993), effective 1994-95. The projected entitlements from state funds were provided to you in Supts. Memo. No. 4 (Regulatory), dated March 15, 1994.

The issue of fees, aside from textbook fees, is a more complicated matter. Approximately one half of the divisions in the state report that they charge some form of user fee to students. Most of these fees have been in place for many years and represent local school board and community budgetary decisions.

A review of previous Supts. Memos., Code of Virginia provisions, and Board of Education regulations regarding this matter is somewhat confusing. Informational Supts. Memo. No. 171 (September 3, 1993) states that local school divisions have no authority to charge general instructional or material fees, based on opinions of the Attorney General and Board regulations; however, Board regulation VR 270-01-0036 states that a local school board can make supplies, services, and materials available to pupils at cost. In addition, 22.1-253 of the Code of Virginia permits local school boards to charge a user fee for consumable materials and 22.1-28 vests the supervision of schools in each division in a local school board.

I know that each of you work very hard to provide the best possible education for each child at the lowest feasible cost. I know that each of you favor a free system of public education. I also know that you face real and immediate 1994-95 budget issues which can only be solved at the local level. For that reason, I have asked the Board to forego any discussion of the elimination of user fees at the current time. I trust that each of you, in association with your board, will work conscientiously to keep fees as low as possible. I cannot say at this time that this issue will not be revisited in the future by the Board of Education and/or the General Assembly.

It is important, given the General Assembly's position on the free textbook issue, that local boards not place themselves in the position of replacing textbook rental fees with general instructional fees. If such a trend were to develop, I believe the final decision regarding the appropriateness of charging instructional fees would be decided in the halls of the General Assembly, rather than with each local board.

I trust that each of you have policies and regulations in place which will make provision for the waiver of all required fees for each child attending school whose parent or guardian is financially unable to pay such fees (Children who are receiving public assistance in the form of aid to dependent children, general relief, supplemental security income, foster care, or who are eligible for free or reduced price meals under the National School Lunch program).

Please give me a call at (804) 227-2755, or talk with Ms. Kathy Kitchen (804) 225-2025 if you have questions about this matter.

Thank you.

WCBJr/EWM/cp

1981-82 Va. Op. Atty. Gen. 144, 1981-82 Va. Rep. Atty. Gen. 144, 1982 WL 175630 (Va.A.G.)

Office of the Attorney General
Commonwealth of Virginia
*1 January 12, 1982

DRUGS. SUBSTANCE ABUSE COUNSELING PROGRAM. FEES UNAUTHORIZED FOR PUBLIC SCHOOL STUDENTS TO AVOID EXPULSION.

The Honorable John H. Chichester
Member
Senate of Virginia

You ask whether it is legally permissible for a local **school** board to offer students subject to expulsion for substance abuse infractions, a counseling program operated by the local Substance Abuse Services Agency (the "Agency"), as an alternative to expulsion. The program is, I understand, an educational and counseling regimen which involves both the child and the parents. A fee is charged by the Agency which is scaled to the income level and ability of the parents to pay. Those who are below a certain minimum income level are charged nothing for the service.

Under the plan envisioned by the local **school** board, no fee would be charged by the **school** board for reference to the Agency. The only fee imposed would be the Agency fee noted above. Failure to pay the fee by those whom the Agency determined were able to pay would result in their exclusion from the program and, therefore, their expulsion from **school**. Consequently, although the charge for the counseling program is not levied directly by the local **school** board, it must be scrutinized as an indirect charge by the board.

The General Assembly has the responsibility of providing a system of free public elementary and secondary education. See Art. VIII, § 1 of the Constitution of Virginia (1971). To effectuate this provision, the General Assembly has provided that **fees** may not be charged by **school** divisions except in specified circumstances. Section 22.1-6 of the Code of Virginia (1950), as amended, currently provides:

"Except as provided in this title or as permitted by regulation of the Board of Education, no **fees** or **charges** may be levied on any pupil by any **school** board. No pupil's scholastic report card or diploma shall be withheld because of nonpayment of any such fee or charge."

Certain **charges**, such as those for the cost of consumable materials and workbooks, are permitted by law. See § 22.1-253. Also, the Board of Education (hereafter "Board") by regulation permits **school** boards to charge **fees** for certain ancillary and optional services or items. [FN1] These regulations reflect prior Opinions of this Office which have held that it is permissible to charge **fees** for optional instruction in the use of musical instruments and for the optional rental of student lockers. See Reports of the Attorney General (1976-1977) at 248; (1964-1965) at 294. See, also, Annot., 41 A.L.R.3d 752 (1972).

Nothing in Title 22.1 or the regulations of the Board permit **charges** by local **school** divisions for substance abuse counseling. Instruction concerning drugs and drug abuse is required by law to be given in the public **schools**. See § 22.1-206. The Board has promulgated regulations to effectuate this requirement in the health education program which, among other things, oblige the public **schools** to:

*2 "Create a climate whereby students may seek and receive counseling about substance abuse and related problems without fear of reprisal." Regulations Regarding Substance Abuse, State Board of Education, p. 105.

It is my opinion, based on the absence of statutory or regulatory authority for the **charges** envisioned in your request, that the payment of such **charges** may not be made a condition to the continued **school** enrollment of a student who is otherwise entitled under Art. VIII, § 1 to a free public education.

This does not mean that local **school** divisions are powerless to refer students subject to expulsion for substance abuse infractions to counseling. It may be that a student subject to expulsion voluntarily decides to commence counseling at an agency specializing in substance abuse problems. Also, § 22.1-279 provides that when a student under the age of 18 is expelled, the **school** board shall notify the appropriate officer or employee of the **school** the student attended. That officer then may develop a plan of services for the expelled student and contact any public agency where the student resides to determine if the agency can provide appropriate services for the student.

Current statutory provisions encourage **school** divisions to refer students expelled for substance abuse to a counseling agency. However, the proposed counseling program and payment of **fees** may not be imposed unless and until authorized by statute or the Board.

John Marshall Coleman
Attorney General

[FN1] Current regulations of the Board regarding student **fees** and **charges** provide:
"No **fees** or **charges** except as noted below may be levied on any pupil by any **school** board unless authorized by the Board of Education; further, no pupil's scholastic report card or diploma shall be withheld because of non-payment of any such fee or charge.

Fees may be charged for:

- Class dues
- Voluntary student activities
- Night **school** classes
- Postgraduate classes
- Summer **school**
- Rental textbooks
- Musical instruments used in regularly scheduled instructional classes
- Library **fees**

Nothing in this regulation shall be construed to prohibit the **school** board of any county, city, or town from making supplies, services or materials available to pupils at cost. Nor is it a violation to make a charge for a field trip or any educational related program that is not a required activity. Deposits may be required when return of the item used results in a return of the **fees** deposited." Regulations Regarding **Fees** and **Charges**, State Board of Education.

1981-82 Va. Op. Atty. Gen. 144, 1981-82 Va. Rep. Atty. Gen. 144, 1982 WL 175630 (Va.A.G.)
END OF DOCUMENT

1991 Va. Op. Atty. Gen. 149, 1991 Va. Rep. Atty. Gen. 149, 1991 WL 531109 (Va.A.G.)

Office of the Attorney General
Commonwealth of Virginia
*1 November 8, 1991

Mr. David T. Stitt
County Attorney for Fairfax County
4100 Chain Bridge Road
Fairfax, Virginia 22030

My dear Mr. Stitt:

You ask whether the Fairfax County **School** Board lawfully may charge a \$100 annual parking fee to students who wish to park their cars on **school** property.

I. Applicable Constitutional and Statutory Provisions

Article VIII, § 1 of the Constitution of Virginia (1971) requires the General Assembly to "provide for a system of free public elementary and secondary **schools** for all children of **school** age throughout the Commonwealth." Article VIII, § 7 vests supervision of public **school** divisions in local **school** boards.

Section 22.1-6 of the Code of Virginia provides that, "[e]xcept as provided in this title [Title 22.1] or as permitted by regulation of the Board of Education, no **fees** or **charges** may be levied on any pupil by any **school** board."

Section 22.1-79(A) provides:
A **school** board shall:

* * *

3. Care for, manage and control the property of the **school** division...."

Section 22.1-131 also provides that "[a] **school** board may permit the use, upon such terms and conditions as it deems proper, of such **school** property as will not impair the efficiency of the **schools**."

II. **School** Board May Charge Fee for Optional Student Parking on **School** Property

Prior Opinions of this Office conclude that the requirement for a free public **school** system in Article VIII, § 1 bars local **school** boards from imposing student **fees** as a condition of **school** enrollment, but not from charging **fees** for optional or ancillary services or activities. See, e.g., 1981-1982 Att'y Gen. Ann. Rep. 144, 145 (**school** board may not condition student's continued enrollment on paid participation in drug counseling program).

Sections 22.1-79 and 22.1-131 give local **school** boards broad authority over the use of **school** property. Another prior Opinion of this Office concludes that charging for rental of student lockers, an optional service to students, is within the scope of a local board's authority. 1964-1965 Att'y Gen. Ann. Rep. 294. Still another Opinion concludes that a **school** division superintendent may not impose a student parking fee without the approval of the local **school** board. 1971-1972 Att'y Gen. Ann. Rep. 356. That Opinion does not question the authority of the local board to charge for student parking. *Id.* at 357.

Current regulations of the Board of Education ("State Board") adopted as permitted under § 22.1-6 provide that

[f]ees may be charged for:
Class dues

Voluntary student activities

Night **school** classes

Postgraduate classes

Summer **school**

Rental textbooks

Musical instruments used in regularly scheduled instructional classes

Library **fees** Nothing in this regulation shall be construed to prohibit the **school** board of any county, city, or town from making supplies, services, or materials available to pupils at cost. Nor is it a violation to make a charge for a field trip or an educational related program that is not a required activity.

*2 Bd. Educ., Regulations of the Board of Education of the Commonwealth of Virginia 21 (1980). In appropriate circumstances, a charge for parking can be considered both a payment for a "[v]oluntary student activit[y]" and a charge for a service made "available to pupils at cost" by a local board. Id.

Obviously, no student is required to drive a car to **school** or to park it on **school** property. Fairfax County offers free transportation to students who live beyond walking distance from their **schools**. Parking is, therefore, an optional use of **school** property that the Fairfax County **School** Board may provide as a service to its students who are licensed drivers. In my opinion, based on the above, the Fairfax County **School** Board is authorized to require students to pay a fee reasonably related to its cost for this optional privilege. Whether a charge of a particular amount is reasonable is a determination of fact to be made in the first instance by the **School** Board.

With kindest regards, I am

Sincerely,

Mary Sue Terry
Attorney General

1991 Va. Op. Atty. Gen. 149, 1991 Va. Rep. Atty. Gen. 149, 1991 WL 531109 (Va.A.G.)
END OF DOCUMENT

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99-101

EDUCATION: SYSTEM OF PUBLIC SCHOOLS; GENERAL PROVISIONS — PROGRAMS, COURSES OF INSTRUCTION, ETC. — BOARD OF EDUCATION — PUPILS – DISCIPLINE.

CONSTITUTION OF VIRGINIA: EDUCATION.

Fairfax County School Board lacks authority to require parents to pay for testing and treatment program as condition to granting excused absences to pupils suspended for substance abuse. Board of Education may not authorize local school board to establish program that conditions suspended student's participation in program on parents' payment of costs of participation.

The Honorable Joseph V. Gartlan Jr.
Member, Senate of Virginia
January 11, 2000

You ask whether, as a condition to granting excused absences to a pupil suspended for substance abuse, a local school board may require the pupil to participate in a testing and treatment program and impose the costs of the program on the pupil's parents.

You explain that the Fairfax County School Board wishes to adopt a policy requiring students suspended for substance abuse on school property to undergo testing and assessment with parental participation and, if recommended after the testing and assessment, to undergo treatment. You state that the policy would permit the student to undergo the testing, assessment and treatment through either the local public mental health agency or a private practitioner. Whether provided by the local mental health agency or by a private practitioner, the parents are to pay the costs of the testing, assessment and treatment. If the treatment is provided by a local mental health agency, the fee may be based on a sliding scale. Only upon satisfying the testing and treatment requirements would a student be granted excused absences for the suspension and thus be allowed to make up work missed.

You ask whether the Fairfax County School Board has the authority to condition the granting of excused absences on the parents' obtaining, at their own expense, substance abuse testing, assessment and treatment for the student. Section 22.1-6 of the *Code of Virginia* restricts the authority of a school board to impose fees on pupils. The section provides that "[e]xcept as provided in [Title 22.1] or as permitted by regulation of the Board of Education, no fees or charges may be levied on any pupil by any school board." No regulation or statute permits a local school board to impose the type of charge you describe.¹ It is accordingly my opinion that the Fairfax County School Board lacks authority to require parents to pay for substance abuse testing and treatment as a condition to a pupil's being granted excused absences for a suspension. This result is consistent with a 1982 opinion of the Attorney General which concludes that a local school board may not make participation in a substance abuse counseling program, for which the parents must pay, an alternative to expulsion.²

You also ask whether the Board of Education may grant the Fairfax County School Board the authority to impose a charge for the type of program you

describe.³ No statute or regulation expressly authorizes the Board of Education to approve such a program or charge by a local school board. In addition, § 22.1-209.1:9, which establishes the Community-Based Intervention Program for Suspended and Expelled Students (the "Program") and establishes a mechanism for funding the Program,⁴ indicates that the General Assembly intends programs of the nature you describe to be administered in accordance with the statute.

The 1999 Session of the General Assembly enacted § 22.1-209.1:9.⁵ The purpose of the Program is "to provide interim instructional programs, intervention, and supervision for students in the public schools who have been suspended, excluded or expelled from school attendance."⁶ The Program is to "consist of five regional projects located throughout the Commonwealth."⁷ Students are eligible to attend the Program if recommended by the local school board, ordered by a court in the Commonwealth, or enrolled in the Program by a parent.⁸ The Department of Education is to administer the Program and is authorized to establish a fee schedule based on a parent's ability to pay, with waivers to be granted if the parent cannot afford the costs.⁹

Section 22.1-209.1:9 indicates a legislative intent that programs providing intervention and supervision for students who have been suspended or expelled are to be administered by the Department of Education, with any charge for a student's participation in the program imposed in accordance with the fee schedule established by the Department. It is thus my opinion that, under current law, the Board of Education may not authorize a local school board to establish a program that conditions a suspended student's participation in the program on the parents' payment of the costs of the participation.

¹Section 22.1-206 requires the public schools to provide instruction concerning drugs and drug abuse but does not authorize a fee for this instruction.

²1981-1982 Op. Va. Att'y Gen. 144; *see also* 1973-1974 Op. Va. Att'y Gen. 316 (in absence of statute, local school board may not require children to have dental examination as prerequisite to school attendance; school board has implicit power only to extent necessary to protect health of other children or to enable child to benefit from education).

³Under its general power to "promulgate such regulations as may be necessary to carry out its powers and duties and the provisions of [Title 22.1]," the Board of Education has by regulation authorized local school boards to impose certain fees on pupils. Section 22.1-16; *see* 8 VAC 20-370-10 (Law. Coop. 1996) ("Fee and charges" regulation). Whether the imposition of fees conflicts with the mandate of Article VIII, § 1 of the Constitution of Virginia (1971) that all children of the Commonwealth be provided a "free" public education depends on the nature of the particular fee. *See* Op. Va. Att'y Gen.: 1977-1978 at 364, 365 (Constitution does not require that all materials and supplies be provided free to every student); 1976-1977 at 248 (fee for activity that is not required part of curriculum does not conflict with Constitution).

⁴*See also* § 22.1-209.1:10 (creating Community-Based Intervention Program for Suspended and Expelled Students Fund).

⁵1999 Va. Acts ch. 440, at 600, 600 (appearing in act as § 22.1-209.1:6).

⁶Section 22.1-209.1:9(A).

⁷Section 22.1-209.1:9(C).

⁸Section 22.1-209.1:9(B).

⁹Section 22.1-209.1:9(A)-(B). Section 22.1-277.03(B) requires that the notice to parents of a student's suspension or expulsion is to provide information "concerning the availability of community-based educational, alternative education, or intervention programs."



COMMONWEALTH of VIRGINIA

Office of the Attorney General

Robert F. McDonnell
Attorney General

900 East Main Street
Richmond, Virginia 23219
804-786-2071
FAX 804-786-1991
Virginia Relay Services
800-828-1120
7-1-1

August 29, 2007

The Honorable John S. Reid
Member, House of Delegates
P.O. Box 29566
Richmond, Virginia 23242

Dear Delegate Reid:

I am responding to your request for an official advisory opinion in accordance with § 2.2-505 of the *Code of Virginia*.

Issue Presented

You ask whether a local school board may charge a fee to transport students on a school bus to and from school.

Response

It is my opinion that local school boards may not charge for the transportation of students to and from school.

Background

You state that a local school board, in considering its budget, has asked whether it may charge a fee to transport students on a school bus to and from school. You note that the board would not charge a fee for students whose transportation is required by § 22.1-221.

Applicable Law and Discussion

Article VIII, § 1 of the Constitution of Virginia directs the General Assembly to “provide for a system of free public elementary and secondary schools for all children of school age throughout the Commonwealth.” In § 22.1-3(A), the General Assembly has responded and directs that “[t]he public schools in each school division shall be free to each person of school age who resides within the school division.”

With one exception, I find no provision of the Virginia Constitution or the *Virginia Code* that requires local school boards to provide transportation for the pupils it serves. Section 22.1-176(A) authorizes “[s]chool boards [to] provide for the transportation of pupils, but nothing herein contained shall be construed as requiring such transportation except as provided in § 22.1-221.” Section 22.1-221(A) requires school boards to provide free transportation to students with disabilities so they may obtain the “benefit of educational programs and opportunities.”

Section 22.1-176(B) is a single purpose statute that authorizes a school board to charge fees for the transportation of pupils in a *single* circumstance:

When a school board provides transportation to pupils for extracurricular activities, other than those covered by an activity fund, which are sponsored by the pupils' school apart from the regular instructional program and which the pupils are not required to attend or participate in, the school board may accept contributions for such transportation or charge each pupil utilizing such transportation a reasonable fee not to exceed his pro rata share of the cost of providing such transportation. [Emphasis added.]

Section 22.1-176(B) further authorizes a school board to waive such fees for pupils whose parents or guardians are unable to afford them.¹

It is a standard rule of statutory construction that when a statute creates a specific grant of authority, the authority exists only to the extent specifically granted in the statute.² In this matter, the General Assembly has authorized local school boards to charge fees for transportation only when it provides the transportation for optional extracurricular activities.

Local school boards are not permitted to levy fees or charge any pupil except as provided in Title 22.1 or by regulation of the Board of Education.³ Such regulation, 8 VAC § 20-370-10, provides that “[n]othing in this chapter shall be construed to prohibit [a local school board] from making supplies, services, or materials available to pupils at cost. Nor is it a violation to make a charge for a field trip or an educational related program that is not a required activity.” An argument could be advanced that transportation to and from school is a “service” for which school boards may charge. However, if that were correct, the additional statement in § 20-370-10 permitting a school board to charge for field trips or other educational-related programs would be unnecessary as they would be “services” for which fees could be charged. I note that the exception in § 20-370-10 for charging fees for field trips corresponds to the authority in § 22.1-176 to accept contributions for such transportation. Ultimately, the argument relating to an administrative regulation cannot overcome the clear rule of statutory construction regarding specific grants of authority.⁴ Therefore, for the reasons stated, bus transportation to and from school is not a “service” within the meaning of 8 VAC § 20-370-10.

Conclusion

Accordingly, it is my opinion that local school boards may not charge for the transportation of students to and from school.

¹I note that § 22.1-176(C) authorizes school divisions to accept contributions to transport pupils on field trips that are part of the school program or sponsored by the school. In my opinion, the authority to accept contributions does not confer the authority to charge fees.

²2006 Op. Va. Att’y Gen. Ann. 29, 30 and opinions cited therein.

³VA. CODE ANN. § 22.1-6 (2006). I note, however, that local school boards may enter into cost-sharing arrangements with nonpublic schools. See § 22.1-176.1 (Supp. 2007).

⁴See *supra* note 2 and accompanying text.

The Honorable John S. Reid
August 29, 2007
Page 3

Thank you for letting me be of service to you.

Sincerely,

A handwritten signature in cursive script that reads "Robert F. McDonnell". The signature is written in black ink and is positioned to the right of the typed name.

Robert F. McDonnell

1:61; 1:941/07-053

Board of Education Agenda Item

Item: _____ G. _____

Date: June 19, 2008

Topic: Annual Performance Report on Adult Education and Family Literacy

Presenter: Ms. Elizabeth Hawa, Director, Adult Education and Literacy

Telephone Number: (804) 225-2075

E-Mail Address: Elizabeth.Hawa@doe.virginia.gov

Origin:

Topic presented for information only (no board action required)

Board review required by

State or federal law or regulation

Board of Education regulation

Other: _____

Action requested at this meeting Action requested at future meeting: _____ (date)

Previous Review/Action:

No previous board review/action

Previous review/action

date _____

action _____

Background Information:

The *Code of Virginia* states:

Section 22.1-226. Allocation of state funds; evaluation and report.

A. State funds provided for adult education programs shall be allocated to school divisions for actual costs on a fixed-cost-per-student or cost-per-class basis.

B. School divisions shall evaluate adult education programs offered by the school division annually, beginning on July 1, 2000, by synthesizing data collected for other state and federal reports, and shall report the findings of the evaluation, including the effectiveness and success of programs in assisting adults in obtaining the general educational development (GED[®]) certificate and the high school diploma.

The Board of Education shall collect the results and report the findings to the Governor and the General Assembly.

Summary of Major Elements:

The attached report summarizes the progress made by learners in adult education programs funded by Title II of the *Workforce Investment Act* during the 2006-2007 fiscal year. The document reports performance targets negotiated with the U. S. Department of Education and the progress made in reaching the targets.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the Adult Education Annual Performance Report pursuant to Section 22.1-226 in the *Code of Virginia*.

Impact on Resources:

This responsibility can be absorbed by the agency's existing resources at this time. If the agency is required to absorb additional responsibilities related to this activity, other services may be impacted.

Timetable for Further Review/Action:

Following the Board's approval, the report will be transmitted to the Governor and the General Assembly as required by the *Code of Virginia*.



VIRGINIA BOARD OF EDUCATION

2008 Annual Report

ADULT EDUCATION ANNUAL PERFORMANCE REPORT

PRESENTED TO

**THE HONORABLE TIMOTHY KAINE
GOVERNOR OF VIRGINIA
AND
THE GENERAL ASSEMBLY**

JUNE 2008

ADULT EDUCATION ANNUAL PERFORMANCE REPORT FISCAL YEAR 2006-2007

The Office of Adult Education and Literacy (OAEL), located in the Virginia Department of Education (VDOE), Division of Technology and Career Education, provides leadership and oversight to adult education programs and services in Virginia, including Adult Basic Education (ABE), Adult Secondary Education (ASE), and English for Speakers of Other Languages (ESOL). Although the *Code of Virginia* places the responsibility for adult education with Virginia's 132 local school divisions, services are delivered through a partnership of public and community-based providers that includes local school boards; community colleges; not-for-profit and faith-based literacy groups; employers; state, local and regional correctional facilities; and state institutions.

OAEL manages federal and state funds allocated for these programs. This report describes progress made in reaching programmatic goals established for providers that utilize federal and state resources to augment other public or private funds to conduct adult education programs. Virginia's programs have been successful in meeting the goal of continuous improvement as prescribed by the Workforce Investment Act (WIA). In fiscal year 2006-2007, OAEL was eligible for incentive funds. Eligibility is determined through a formula that incorporates performance targets established by the National Reporting System (NRS) methodology and negotiated with the U.S. Department of Education (USED) annually.

The fiscal year 2006-2007 data indicate that progress is being made to meet the goals cooperatively established by USED and VDOE. This report presents quantitative information in the following areas: (1) characteristics of the adult education population, (2) program performance summary, (3) educational functioning level (EFL) performance, and (4) follow-up outcome measures. Also included is a section on state management of the performance data.

CHARACTERISTICS OF THE ADULT EDUCATION POPULATION

Demographic Indicator	Description
Total Enrollment	Virginia's total enrollment (32,502) is comprised of 36.3 percent Adult Basic Education (ABE), 13.4 percent Adult Secondary Education (ASE) and 50.3 percent English for Speakers of Other Languages (ESOL) students.
Ethnicity	Virginia's adult student ethnic composition includes 35.9 percent (11,657) Hispanic; 27.0 percent (8,758) Black; 26.3 percent (8,552) White; 10.4 percent (3,386) Asian; .3 percent (102) American Indian/Alaskan Native; and 1 percent (47) Native Hawaiian or Other Pacific Islander.
Age	Seven percent of Virginia's adult student enrollment (2,431) is 16-18; 23 percent (7,389) is 19-24; 51 percent (16,582) is 25-44 years of age; 16 percent (5,050) is 45-59; and three percent (1,050) is 60 or older.
Gender	Fifty-seven percent (18,484) of Virginia's adult student enrollment is female and 43 percent (14,018) is male.
Employment Status	Virginia's adult students reflect the following employment statuses: 17,101 are employed; 15,401 are unemployed; 2,923 are in a correctional setting; 57 are in another institutional setting; and 1,038 are on public assistance.
Annual Average Hours of Attendance	Average hours of attendance for students enrolled in ABE are 66; in ASE, 44; and in ESL, 78. The overall average is 69.

PROGRAM PERFORMANCE SUMMARY

Areas of Accomplishment	Performance Highlights
Educational Gains	Fourteen thousand nine-hundred eleven (14,911) students, or 46 percent, completed their educational functioning levels, and another 8,116, or 25 percent, completed their levels and advanced one or more levels.
Performance Targets	Virginia programs exceeded target performance levels in seven out of eleven educational functioning levels: ABE Beginning Literacy, ABE Beginning Basic Education, ABE Intermediate Low, ESL Low Beginning, ESL High Beginning, ESL Intermediate Low, and ESL Intermediate High. The four levels where Virginia did not meet targets in performance were ABE Intermediate High, ASE Low, ESL Beginning Literacy, and ESL Advanced.
GED Completers	Statewide, 15,178 adult students earned their GED credentials.
GED Credentials	Eighty-six percent (86 percent) of students exiting GED Certificate programs attained their GED credentials.
External Diploma Credentials	Eighty-two percent (82 percent) of students exiting the External Diploma Program attained their External Diploma.
High School Diploma Credentials	Eighty-eight percent (88 percent) of students exiting adult high school diploma programs attained their adult high school diploma.

ADULT BASIC EDUCATION (ABE)

Educational Functioning Level	Performance Highlights
ABE Beginning Literacy	Fifty percent (50 percent) of enrolled students in ABE Beginning Literacy completed their educational functioning level, exceeding the 46 percent target performance level by four percentage points.
ABE Beginning Basic Education	Fifty-one percent (51 percent) of enrolled students in ABE Beginning Basic Education completed their educational functioning level, exceeding the 49 percent target performance level by two percentage points.
ABE Intermediate Low	Forty-nine percent (49 percent) of enrolled students in ABE Intermediate Low completed their educational functioning level, exceeding the 48 percent target performance level by one percentage point.
ABE Intermediate High	Forty-four percent (44 percent) of enrolled students in ABE Intermediate High completed their educational functioning level. Virginia's target performance level was 48 percent. Demonstrating educational gains for this group has become more challenging with the increased desire of students to take the GED Tests. Many of these students were not present for the administration of a post-test.

ADULT SECONDARY EDUCATION (ASE)

Educational Functioning Level	Performance Highlight
ASE Low	Forty-seven percent (47 percent) of enrolled students in ASE Low completed their educational functioning level. Virginia’s target performance level was 60 percent. Demonstrating educational gains for this group has become more challenging with the increased desire of students to take the GED Tests. Many of these students were not present for the administration of a post-test.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

Educational Functioning Level	Performance Highlights
ESL Beginning Literacy	Thirty-six percent (36 percent) of enrolled students in ESL Beginning Literacy completed their educational functioning level. Virginia’s target performance level was 40 percent. Demonstrating educational gains for this group is a major challenge because many of these adults have low literacy skills in their native language, are seeking employment, or are working multiple jobs. As a result, these adults may not be available for a post-test.
ESL Low Beginning	Fifty-three percent (53 percent) of enrolled students in ESL Low Beginning completed their educational functioning level, exceeding the 38 percent target performance level by fifteen percentage points.
ESL High Beginning	Fifty-two percent (52 percent) of enrolled students in ESL High Beginning completed their educational functioning level, exceeding the 38 percent target performance level by fourteen percentage points.
ESL Intermediate Low	Forty-six percent (46 percent) of enrolled students in ESL Intermediate Low completed their educational functioning level, exceeding the 43 percent target performance level by three percentage points.
ESL Intermediate High	Forty-five percent (45 percent) of enrolled students in ESL Intermediate High completed their educational functioning level, exceeding the 41 percent target performance level by four percentage points.
ESL Advanced	Twenty-four percent (24 percent) of enrolled students in ESL Advanced completed their educational functioning level. Virginia’s target performance level was 30 percent. Demonstrating educational gains for this group is a major challenge because many of these adults are better educated, seeking employment, or working multiple jobs. As a result, these adults may not be available for a post-test. Transition options for students into adult basic education instructional environments are being explored.

FOLLOW-UP OUTCOME MEASURES

Follow-up Measure	Performance Highlights
Obtain a High School Diploma or GED Credential	Eighty-six percent (86 percent) of students with a goal of obtaining a high school diploma or GED reached their goal one quarter after leaving class, exceeding the 85 percent target level by 1 percentage point.
Enter Employment	Sixty-five percent (65 percent) of students with a goal to enter employment reached their goal one quarter after leaving class, exceeding the 30 percent target level by 35 percentage points.
Retain Employment	Sixty-seven percent (67 percent) of students with a goal to retain employment reached their goal three quarters after leaving class, exceeding the 53 percent target by fourteen percentage points.
Enter Postsecondary Education or Training	Twenty-four percent (24 percent) of students with a goal to enter postsecondary education or training reached their goal one quarter after leaving class. Virginia’s target performance level was 33 percent. State Council of Higher Education in Virginia (SCHEV) data are used for matching purposes. The data collection period for SCHEV does not cover two quarters of the adult education fiscal year. As a result, this figure does not represent the total number entering postsecondary education or training. In addition, adults seeking postsecondary education and training may be attending programs not recognized by SCHEV or programs in other states. Acceptance into the military is an additional indicator not captured in the postsecondary match. Additionally, the strength of the postsecondary data and the ability to match are dependent on adult students providing social security numbers.

Progress in Virginia’s adult education programs includes improved achievement in education functioning level completion and surpassing state goals to enter employment, retain employment, and obtain a high school diploma or GED.

STATE MANAGEMENT OF PERFORMANCE DATA

OAEL has a comprehensive data management system for the collection, analysis, and reporting of state data for the NRS. OAEL has procedures and systems that promote the highest levels of data validity and reliability, including systems for verifying data accuracy from local programs, systems for monitoring data collection and analyses, and corrective systems to improve data on an ongoing basis. State procedures indicate a focus on continuous improvement of the quality and accuracy of data.