

COMMONWEALTH of VIRGINIA

Board of Education Agenda

Date of Meeting June 25, 2009 **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

Resolutions/Recognitions

- Resolution of Appreciation presented to Andrew J. Rotherham for his outstanding service as a member of the Board of Education, 2005-2009

Approval of Minutes of the May 28, 2009, Meeting of the Board

Public Comment

Action/Discussion Items

- A. Final Review of a Proposal Regarding Grade 3 History and Social Science Assessments and a Timeline for Revising Reading Assessments
- B. First Review of Proposed *Economics and Personal Finance Standards of Learning*
- C. First Review of a Request to Extend Approval of Alternative Accreditation Plans from Henrico County Public Schools for Mt. Vernon Middle School and New Bridge Middle School
- D. First Review of Proposed Guidelines for the Neighborhood Assistance Program for Education
- E. First Review of the Proposed Template for School Divisions to Display Budget Information (HB 2269)

Action/Discussion Items (continued)

- F. First Review of Revisions to Criteria for the *Virginia Index of Performance*, Virginia's Incentive Program to Encourage and Recognize School Accountability Performance and Competence to Excellence
- G. First Review of Pupil Transportation Specifications for School Buses

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 24, 2009. 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 ensure 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.

administering the Standards of Learning assessments to ensure genuine end-of-course and end-of-grade testing and (ii) with the assistance of independent testing experts, conduct a regular analysis and validation process for these assessments.

Summary of Major Elements:

The Superintendent's Leadership Advisory Council, which consists of the eight regional chairs and officers of the Virginia Association of School Superintendents (VASS), and other educators have encouraged the Department of Education to look for ways to relieve educators of administrative testing burdens, especially in tested areas not required by the federal government. Reducing the number of tests in areas where there are multiple tests required can free up additional time for instruction, particularly in reading. In response to this request, the grade 3 history and social science test was identified for possible elimination. There are four additional SOL history tests that are administered at the elementary/middle school level.

In support of a literacy approach to history and social science in K-3, the Department of Education will move towards enhancing the SOL reading tests by developing reading passages using topics from the Standards of Learning for history and social sciences and other SOL content areas. While the history content itself would not be tested as part of the Grade 3 reading test, some of the non-fiction passages would be based on topics from the K-3 SOL history and social sciences. For example, passages on the Grade 3 reading test might be based on the contributions of the West African country of Mali or about the accomplishments of Christopher Newport or Christopher Columbus.

At its May 28, 2009, meeting the Board of Education directed department staff to bring to the June 25, 2009, meeting 1) a timeline for using topics from the K-3 history and social science content in the development of reading passages for the grade 3 reading test and 2) a proposal for ensuring that the K-3 history and social science content would be taught if the grade 3 history/social science assessments were removed from the Virginia Assessment Program.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends the Board of Education authorize, with such funds as are made available for this purpose, the Department of Education to (a) proceed with the development of Grade 3 History and Social Science Standards of Learning assessments based on the revised 2008 History and Social Science Standards of Learning and Curriculum Framework and to administer the current Grade 3 assessment until the new tests are completed, and (b) proceed with the proposed timeline to include reading passages and associated items on the Grade 3 reading tests based on K-3 history and social science content standards concurrent with the implementation of tests based on the revised English reading standards scheduled for adoption in 2010.

Impact on Resources:

No additional funds will be needed

Timetable for Further Review/Action:

The Department of Education will notify school divisions of the Board of Education's decision.

Timeline for Revising Grade 3 Reading Assessments

Summer 2010	Content review committees review passages for the grade 3 reading test that are based on content from the K-3 history and social science SOL. Associated items focus on reading comprehension and vocabulary
Spring 2011	Passages and items are field tested
Summer 2011	Committees review passages and items that were field tested in spring 2011 as well as new passages and items scheduled for field testing in spring 2012
Spring 2012	Passages and items reviewed in summer 2011 are field tested
Summer 2012	Committees review passages and items that were field tested in spring 2012, new passages and items scheduled for field testing in spring 2013, and new test forms based on the 2010 curriculum framework
Spring 2013	Tests based on the 2010 curriculum framework are administered and new cut scores are set

Board of Education Agenda Item

Item: _____ B. _____

Date: June 25, 2009

Topic: First Review of Proposed *Economics and Personal Finance Standards of Learning*

Presenter: Dr. Linda M. Wallinger, Assistant Superintendent for Instruction

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E-Mail Address: Linda.Wallinger@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: Fall 2009

Previous Review/Action:

No previous board review/action

Previous review/action

date October 23, 2008

action Approved a Proposal to Develop Standards of Learning for a High School Economics and Personal Finance Course

Background Information:

An understanding of economics and personal finance is important to young people as they learn to manage successfully their own time, money, and resources, and become informed citizens in a globally interdependent society. The Board of Education has recognized how important it is for Virginia high school graduates to develop decision-making skills related to financial management. In 1999, the Board approved a personal living and finance course to meet one of the mathematics requirements for the Modified Standard Diploma, followed by developing *Objectives for Personal Living and Finance* on which the course must be based.

In 2005, Section 22.1-200.03 of the *Code of Virginia* was amended to include a requirement that the Board of Education develop and approve objectives for economics education and financial literacy:

The Board of Education shall develop and approve objectives for economics education and financial literacy at the middle and high school levels, that shall be required of all students, and shall provide for the systematic infusion of economic principles in the relevant Standards of Learning, and in career and technical education programs. The objectives shall include, but not be limited to, personal living and finances; personal and business money management skills; opening an account in a financial institution and judging the quality of a financial institution's services; balancing a checkbook; completing a loan application; the implications of an inheritance; the basics of personal insurance policies; consumer rights and responsibilities; dealing with salesmen and merchants; debt management; managing retail and credit card debt; state and federal tax computation; local tax assessments; computation of interest rates by various mechanisms; understanding simple contracts; and learning how to contest an incorrect bill.

On April 26, 2006, the Board adopted the economics and financial literacy objectives, which also contained a correlation of the objectives to the *Mathematics Standards of Learning*, the *History and Social Science Standards of Learning*, and the Career and Technical Education competencies. Subsequently, several school divisions sought the Board's approval to increase its graduation requirements locally with the addition of a requirement in personal finance.

During the fall of 2008, as part of the proposed revisions to the *Regulations Establishing Standards for Accrediting Public Schools in Virginia* (8 VAC 20-131-5 et seq.) (Standards of Accreditation or SOA), a new statewide graduation requirement in economics and personal finance was proposed for the Standard, Standard Technical, Advanced Studies, and Advanced Technical Diplomas. With that in mind, on October 23, 2008, the Board of Education approved a proposal to develop Standards of Learning for a high school course in economics and personal finance. On February 19, 2009, the Board adopted the revised SOA, which included the economics and personal finance requirement for the diplomas noted above, effective with students entering the ninth grade in 2010-2011, and also continued to permit the use of a course in personal finance to satisfy a graduation requirement in mathematics for the Modified Standard Diploma.

Following the approved timeline established for the development of the *Economics and Personal Finance Standards of Learning*, during the winter of 2009, staff at the Department of Education convened a team of educators, economics and finance experts, and other stakeholders to prepare a draft of the proposed high school standards, which is attached. These proposed standards are based on concepts introduced in the disciplines of history and social science, finance, and accounting, thus resulting in principles important to both areas.

Summary of Major Elements:

In developing the proposed *Economics and Personal Finance Standards of Learning*, the members of the review team first reviewed the concepts approved in previous documents related to economics and financial literacy, information included in the economics strand of the *History and Social Science Standards of Learning*, and the competencies required for students to complete career and technical

education courses in accounting and finance. A concerted effort was made to be comprehensive but succinct in outlining expectations of the course.

The resulting standards address concepts and principles that are important to economics at the macro level, but also direct attention to understanding and skills that students need to be knowledgeable consumers in many areas of daily life, such as further education, career preparation, major purchases, credit and debt, and savings and investments. The proposed standards aim to provide enough direction to ensure that students are exposed to the many aspects of informed decision making they will need for future success, and to serve as a foundation for continued study of economics and finance.

Superintendent’s Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education accept for first review the proposed *Economics and Personal Finance Standards of Learning*.

Impact on Resources:

Following final approval of the *Economics and Personal Finance Standards of Learning*, the Department of Education will begin work on an accompanying curriculum framework. School divisions should begin thinking about staffing and materials for the course since it is a graduation requirement for students entering the ninth grade in 2010-2011.

Timetable for Further Review/Action:

The *Economics and Personal Finance Standards of Learning* work plan calls for public hearings, final review, and adoption of the *Economics and Personal Finance Standards of Learning* by January 2010.

Proposed Economics and Personal Finance
Standards of Learning
June 25, 2009

Students need a strong foundation in economics and personal finance to function effectively as consumers, workers, savers, investors, entrepreneurs, and active citizens. The Standards of Learning for Economics and Personal Finance present economic concepts that help students interpret the daily news, understand how interdependent the world's economies are, and anticipate how events will impact their lives. The understanding of how economies and markets operate and how the United States' economy is interconnected with the global economy, prepares students to be more effective participants in the workplace. On a personal level, students learn that their own human capital (knowledge and skills) is their most valuable resource and that investing in education and training improves the likelihood of their future economic success.

The Standards of Learning for Economics and Personal Finance also help students develop thinking skills that include analyzing real-world situations, economic reasoning, decision making, and problem solving. The topics of economics and personal finance teach that resources are limited; thus, people must make choices that may include substitutions or alternatives. Students practice using a set of tools for analyzing choices of all types, including those related to personal finance. Students learn the benefits of compound interest over time and that poor money management can lead to difficulty in obtaining credit. Students practice weighing costs and benefits of options when making choices about such things as careers, insurance, housing, investments, savings, automobiles and health care. Students practice these skills as they extend their understanding of the essential knowledge defined by the Standards of Learning for Economics and Personal Finance.

- EPF.1 The student will demonstrate knowledge of basic economic concepts and structures by
- a) describing how consumers, businesses, and government decision makers face scarcity of resources and must make trade-offs and incur opportunity costs;
 - b) explaining that choices often have long-term unintended consequences;
 - c) describing how effective decision making requires comparing the additional costs (marginal costs) and additional benefits (marginal benefits);
 - d) identifying factors of production;
 - e) comparing the characteristics of market, command, tradition, and mixed economies; and
 - f) identifying Adam Smith and describing the characteristics of a market economy.
- EPF.2 The student will demonstrate knowledge of the role of producers and consumers in a market economy by
- a) describing how consumers, producers, workers, savers, investors, and citizens respond to incentives;
 - b) explaining how businesses respond to consumer sovereignty;
 - c) identifying the role of entrepreneurs;
 - d) comparing the costs and benefits of different forms of business organization, including sole proprietorship, partnership, corporation, franchise, and cooperative;
 - e) describing how costs and revenues affect profit and supply;

- f) describing how increased productivity affects costs of production and standard of living;
- g) examining how investment in human capital, capital goods, and technology can improve productivity;
- h) describing the effects of competition on producers, sellers, and consumers;
- i) explaining why monopolies or collusion among sellers reduces competition and raises prices; and
- j) illustrating the circular flow of economic activity.

EPF.3 The student will demonstrate knowledge of the price system by

- a) examining the laws of supply and demand and the determinants of each;
- b) explaining how the interaction of supply and demand determines equilibrium price;
- c) describing the elasticity of supply and demand; and
- d) examining the purposes and implications of price ceilings and price floors.

EPF. 4 The student will demonstrate knowledge that many factors affect income by

- a) examining the market value of a worker's skills and knowledge;
- b) identifying the impact of human capital on production costs;
- c) explaining the relationship between a person's own human capital and the resulting income potential; and
- d) describing how changes in supply and demand for goods and services affect income.

EFP.5 The student will demonstrate knowledge of a nation's economic goals, including full employment, stable prices, and economic growth, by

- a) describing economic indicators, such as gross domestic product (GDP), consumer price index (CPI), and unemployment rate;
- b) describing the causes and effects of unemployment, inflation, and reduced economic growth;
- c) describing the fluctuations of the business cycle; and
- d) describing strategies for achieving national economic goals.

EPF.6 The student will demonstrate knowledge of the nation's financial system by

- a) defining the role of money; and
- b) explaining the role of financial markets and financial institutions.

EPF.7 The student will demonstrate knowledge of how monetary and fiscal policy influence employment, output, and prices by

- a) describing the purpose, structure, and function of the Federal Reserve System;
- b) describing government's role in stabilizing the economy;
- c) describing sources of government revenue; and
- d) explaining balanced budget, deficit, and national debt.

EPF.8 The student will demonstrate knowledge of the role of government in a market economy by

- a) identifying goods and services provided by government to benefit society;
- b) identifying the role the government plays in providing a legal structure to protect property rights and enforce contracts;
- c) providing examples of government regulation of the market;
- d) explaining that governments redistribute wealth; and
- e) explaining that taxes and fees fund all government-provided goods and services.

EPR.9 The student will demonstrate knowledge of the global economy by

- a) explaining that when parties trade voluntarily, all benefit;
- b) distinguishing between absolute and comparative advantage;
- c) distinguishing between trade deficit and trade surplus;
- d) explaining exchange rates, and the impact of a strong dollar and weak dollar on economic decisions;
- e) describing the costs and benefits of trade barriers;
- f) describing the effects of international trade agreements and the World Trade Organization; and
- g) explaining growing economic interdependence.

EPF.10 The student will develop consumer skills by

- a) examining basic economic concepts and their relation to product prices and consumer spending;
- b) examining the effect of supply and demand on wages and prices;
- c) describing the steps in making a purchase decision, including the roles of marginal benefit and marginal cost;
- d) determining the consequences of conspicuous consumption;
- e) describing common types of contracts and the implications of each;
- f) demonstrating comparison-shopping skills;
- g) maintaining a filing system for personal financial records;
- h) examining the impact of advertising and marketing on consumer demand and decision making in the global marketplace;
- i) accessing reliable financial information from a variety of sources;
- j) explaining consumer rights, responsibilities, remedies, and the importance of consumer vigilance; and
- k) examining precautions for protecting identity and other personal information.

EPF.11 The student will demonstrate knowledge of planning for living and leisure expenses by

- a) comparing the costs and benefits of purchasing vs. leasing a vehicle;
- b) comparing the advantages and disadvantages of renting vs. purchasing a home;
- c) describing the process of renting housing;
- d) describing the process of purchasing a home;
- e) calculating the cost of utilities, services, maintenance, and other housing expenses; and
- f) evaluating discretionary spending decisions.

EPF.12 The student will demonstrate knowledge of banking transactions by

- a) comparing the types of financial institutions;
- b) examining how financial institutions affect personal financial planning;
- c) evaluating services and related costs associated with personal banking;
- d) differentiating among types of electronic monetary transactions;
- e) preparing all forms necessary for opening and maintaining a checking and a savings account;
- f) reconciling bank statements;
- g) comparing costs and benefits of online and traditional banking; and
- h) explaining how certain historical events have influenced the banking system and other financial institutions.

- EPF.13 The student will demonstrate knowledge of credit and loan functions by
- a) evaluating the various methods of financing a purchase;
 - b) analyzing credit card features and their impact on personal financial planning;
 - c) identifying qualifications needed to obtain credit;
 - d) identifying basic provisions of credit and loan laws;
 - e) comparing terms and conditions of various sources of consumer credit;
 - f) identifying strategies for effective debt management, including sources of assistance;
 - g) explaining the need for a good credit rating;
 - h) comparing the costs and conditions of secured and unsecured loans; and
 - i) comparing the types of voluntary and involuntary bankruptcy and the implications of each.
- EPF.14 The student will demonstrate knowledge of the role of insurance in risk management by
- a) evaluating insurance as a risk management strategy;
 - b) distinguishing among the types, costs, and benefits of insurance coverage, including automobile, life, property, health, and professional liability; and
 - c) explaining the roles of insurance in financial planning.
- EPF.15 The student will demonstrate knowledge of income earning and reporting by
- a) examining how personal choices about education, training, skill development, and careers impact earnings;
 - b) differentiating among sources of income;
 - c) calculating net pay;
 - d) investigating employee benefits and incentives; and
 - e) completing a standard W-4 form.
- EPF.16 The student will demonstrate knowledge of taxes by
- a) describing the types and purposes of local, state, and federal taxes and the way each is levied and used;
 - b) exploring how tax structures affect consumers, producers, and business owners differently;
 - c) computing local taxes on products and services;
 - d) examining potential tax deductions and credits on a tax return; and
 - e) explaining the content and purpose of a standard W-2 form.
- EPF.17 The student will demonstrate knowledge of the financial implications of an inheritance by
- a) explaining the similarities and differences between state and federal taxation of inheritances;
 - b) defining the terminology and options associated with inheritance; and
 - c) examining types and purposes of estate planning.
- EPF.18 The student will demonstrate knowledge of personal financial planning by
- a) identifying short-term and long-term personal financial goals;
 - b) identifying anticipated and unanticipated income and expenses;
 - c) examining components and purposes of a personal net worth statement;
 - d) developing a personal budget;
 - e) investigating the effects of government actions and economic conditions on personal financial planning; and
 - f) explaining how economics influences a personal financial plan.

- EPF.19 The student will demonstrate knowledge of investment and savings planning by
- a) comparing the impact of simple interest vs. compound interest on savings;
 - b) comparing and contrasting investment and savings options;
 - c) explaining costs and income sources for investments;
 - d) examining the fundamental workings of Social Security and the system's effects on retirement planning;
 - e) contrasting alternative retirement plans; and
 - f) describing how the stock market works.

Board of Education Agenda Item

Item: _____ C. _____

Date: June 25, 2009

Topic: First Review of a Request to Extend Approval of Alternative Accreditation Plans from Henrico County Public Schools for Mt. Vernon Middle School and New Bridge Middle School

Presenters: Dr. Kathleen M. Smith, Director of the Office of School Improvement
Mr. Fred Morton, Superintendent, Henrico County Public Schools

Telephone Number: (804) 225-2865 **E-Mail Address:** Kathleen.Smith@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: Waive first review

Previous Review/Action:

No previous board review/action

Previous review/action
date September 27, 2006

action Approval of the Alternative Accreditation Plans from Henrico County Public Schools

Background Information:

The Regulations Establishing Standards for Accrediting Public Schools in Virginia effective September 7, 2006, Section 8 VAC 20-131.280.C. of the standards states:

Subject to the provisions of 8 VAC 20-131-330, the governing school board of special purpose schools such as those provided for in §22.1-26 of the Code, Governor's schools, special education schools, alternative schools, or career and technical schools that serve as the student's school of principal enrollment may seek approval of an alternative accreditation plan from the Board of Education. Special purpose schools with alternative accreditation plans shall be evaluated on standards appropriate to the programs offered in the school and approved by the Board prior to August 1 of the school year for which approval is requested. Any student graduating from a special purpose school with a Standard, Advanced Studies, or Modified Standard Diploma must meet the requirements prescribed in 8 VAC 20-131-50.

Henrico County Public Schools (HCPS) received approval by the Board of Education for a three-year extension for alternative accreditation plans for Mt. Vernon Middle School and New Bridge Middle School on September 27, 2006.

In the current approved accreditation plan, school accreditation for Mt. Vernon Middle School is based on the following criterion: scores for each test in each of the four content areas are combined to create one (composite) pass rate, reflecting the interdisciplinary approach to instruction. In order to meet accreditation requirements, the composite pass rate must be 70 percent for grades 6-8 combined. Scores of students in attendance for four semesters or more, including the semester in which testing takes place, are included in the accreditation calculation. With the current alternative accreditation plan, based on assessment data in 2007-2008, Mt. Vernon Middle School was fully accredited in 2008-2009.

In the current approved accreditation plan, school accreditation for New Bridge School is based on the following criterion: scores for each test in each of the four content areas will be combined to create (composite) pass rates, one for grades 3-5 and one for grades 6-8, reflecting the interdisciplinary approach to instruction. In order to meet accreditation requirements, the composite pass rate must be 75 percent for grades 3-5 and 70 percent for grades 6-8. Scores of students in attendance for four semesters or more, including the semester in which testing takes place, will be included in the accreditation calculation. New Bridge now serves only grades 6-8. Based on assessment data in 2007-2008, the school was provided a conditional accreditation rating in 2008-2009.

Summary of Major Elements:

Mt. Vernon and New Bridge Middle Schools serve students age 11 through 15 in grades 6-8 who are at least two years below grade level in reading and/or mathematics, who are over-aged, have been retained one or more years, who have been underserved when assigned to other appropriate services, and who are unlikely to make up academic deficits in a comprehensive middle school setting. Students identified for these nontraditional programs have failed to respond positively to the comprehensive schools' intervention strategies and have fallen into the at-risk category of being retained one or more years. Students are considered for placement in the nontraditional program based on recommendations of the child study committee in the home school, which has conducted a rigorous review of the student's academic performance, educational and family needs and behavioral challenges. In addition, the nontraditional schools may be selected by parents and students because of the educational environment that may meet the present needs of the student. Mt. Vernon and New Bridge Middle Schools offer an Academic and Career Plan (ACP). Students can be enrolled in Mt. Vernon and New Bridge Middle Schools by either administrative placement or by application.

All students will improve their academic performance so that they may successfully transition back to their home school environment through intensive focus on the core areas of language arts and mathematics and through achieving certain behavioral and conduct modifications that are indicative of being a responsible and productive student in an academic environment.

The middle school nontraditional programs present a middle school curriculum aligned with the state and local standards in safe, supportive, small learning communities to provide quality-learning opportunities affording students the skills and behaviors necessary to become lifelong learners. Students are offered appropriate grade-level courses in reading, writing, science, mathematics, and

history/social science and the electives of art, physical education, and career and technical education (CTE). In addition, students receive instruction in workplace readiness, basic skill instruction in the core content subjects and personal social development.

An ACP is developed for each student attending Mt. Vernon and New Bridge Middle Schools. This plan is designed to address the specific academic and behavioral needs of the student and includes performance goals to support the transition to a comprehensive instructional setting. The Virginia Standards of Learning (SOL) are taught through grade-level courses in the four academic areas: English (reading and writing), science, mathematics, and history/social science. Additionally, electives are required in reading and mathematics for students performing two or more grade levels below as indicated on formal assessments. Career and technical education exploratory programs are available to students.

Each student is diagnostically pre-tested upon program entry in reading and mathematics using the Degrees of Reading Power (DRP), the Gates-McGinite, and the Algebra Readiness Diagnostic Test (ARDT) to assist in developing the Individual Student Improvement Plan (ISIP). All other pre-existing assessment information (SOL / Henrico Assessment Test) results will be utilized in developing the ISIP.

Teachers assigned to Mt. Vernon and New Bridge Middle Schools will be highly qualified to teach in their respective content areas. The goal is not to exceed the pupil-teacher ratio of 12:1 in order to better serve the unique needs of the students at the schools.

A waiver from 8 VAC 20-131-90 A-C is requested as foreign languages is not a part of the curriculum.

8 VAC 20-131-90. Instructional program in middle schools.

A. The middle school shall provide each student a program of instruction which corresponds to the Standards of Learning for English, mathematics, science, and history/social studies. In addition, each school shall provide instruction in art, music, foreign language, physical education and health, and career and technical exploration and shall require students to participate in a program of physical fitness during the regular school year in accordance with guidelines established by the Board of Education.

B. The middle school shall provide a minimum of eight courses to students in the eighth grade. English, mathematics, science, and history/social studies shall be required. Four elective courses shall be available: level one of a foreign language, one in health and physical education, one in fine arts, and one in career and technical exploration.

C. Level one of a foreign language and an Algebra I course shall be available to all eighth grade students. For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the student's transcript and the student not earn high school credit for the course in accordance with policies adopted by the local school board. Notice of this provision must be provided to parents with a deadline and format for making such a request. Nothing in these regulations shall be construed to prevent a middle school from offering any other credit-bearing courses for graduation.

The alternative accreditation plan holds the school accountable for student achievement through an index based upon the instructional program and needs of students served. The plan provides a basis for determining state accreditation ratings for a three year period beginning in 2010-11 based upon student performance in 2009-10.

The alternative accreditation index and alternative accreditation point system will measure student achievement based upon progress made in all program areas. The weighted index of students enrolled for 2 years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the SOL assessments in reading, writing, and mathematics will be used to determine accreditation.

Alternative Accreditation Plan

<i>Performance Objective</i>	<i>Performance measure</i>
<i>Core Achievement Objectives:</i>	
<i>1. The number of students in grades 6-8 passing SOL reading and writing tests by proficiency level.</i>	Weighted index of SOL test scores of students enrolled for 2 academic years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the reading SOL tests in grades 6-8 and the writing test at grade 8
<i>2. The number of students in grades 6-8 passing SOL mathematics tests by proficiency level.</i>	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the SOL mathematics tests in grades 6-8
<i>Core Other Academic Indicators:</i>	
<i>3. The number of students in grade 8 passing the Algebra I SOL Assessment by proficiency level.</i>	Weighted index of students enrolled for 2 academic years (at least 4 semesters) achieving at the proficient and advanced levels on the SOL end-of-course exams in Algebra I
<i>4. The number of students in grades 6-8 passing science SOL tests by proficiency level.</i>	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in science
<i>5. The number of students in grades 6-8 passing history and social science SOL tests by proficiency level.</i>	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in and history and social science
<i>Core Other Indicator Objectives:</i>	
<i>6. Average daily attendance meets or exceeds 80 percent.</i>	Average Daily Attendance rates for students
<i>7. Increase percentage of students successfully transitioned into regular school setting.</i>	Successful transition shall be measured by a student transitioning to a regular school setting who passes all subjects/courses in the transition

	school during the first semester at that school
8. <i>Decrease number of grade 6-8 discipline referrals.</i>	Incident data for Mt. Vernon Middle School and New Bridge Middle School students
Optional Reach Objectives:	
9. <i>Increase the number of middle school students taking Algebra I.</i>	Number of students in grade 8 taking Algebra I increases annually
10. <i>Increase the number of parent volunteers.</i>	Number of parents assisting with school operations increases annually
11. <i>Increase the number of students participating in the Extended Day Programs.</i>	Number of students attending the Extended Day Programs increases annually

Annual Performance Targets

<i>Language Arts/Reading and Writing</i>	75%
<i>Mathematics</i>	70%

Alternative Accreditation Index Point System:

Core Achievement Objectives		
1 and 2. <i>Weighted index of students enrolled for 2 years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the SOL assessments in reading, writing and mathematics.</i>		
SOL Scaled Score	SOL Proficiency Level	Points Awarded Each SOL Score
500-600	Advanced	100
400-499	Proficient	90
375-399		70
Below 375		0
Core Other Academic Objectives (9 points maximum)		
3. <i>Weighted index of students enrolled for 2 years (4 semesters) at the proficient and advanced levels on the Algebra I SOL Assessment.</i>	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point	
4. <i>Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in science.</i>	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point	
5. <i>Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in history and social science.</i>	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point	

<i>Core Other Indicator Objectives (6 points maximum)</i>	
<i>6. Average daily attendance meets or exceeds 80 percent.</i>	2 points
<i>7. Increase the percentage of students successfully transitioned into regular school setting.</i>	2 points
<i>8. Decrease number of grades 6-8 discipline referrals.</i>	2 points
<i>Optional Reach Objectives (3 points maximum)</i>	
<i>9. Increase the number of middle school students taking Algebra I.</i>	1 point
<i>10. Increase the number of parent volunteers.</i>	1 point
<i>11. Increase the number of students participating in the Extended Day Programs.</i>	1 point

Superintendent's Recommendation: The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the request to extend approval of alternative accreditation plans for three years from Henrico County Public Schools for Mt. Vernon Middle School and New Bridge Middle School.

Impact on Resources: There is no impact on the resources of the Department of Education.

Timetable for Further Review/Action: N/A

**Virginia Department of Education
Evaluation Criteria
Mt. Vernon Middle School and New Bridge Middle School, Henrico County Public Schools
Alternative Accreditation Plans for Special Purpose Schools**

Criteria	Yes	No	Limited
School characteristics and instructional program:			
1. The mission, purpose, and target population of the school justify its categorization as a “special purpose” school and, therefore, eligible to request an alternative accreditation plan.	√		
2. The characteristics and special needs of the student population are clearly defined, and the criteria for student placement require parental consultation and agreement.	√		
3. The program of instruction provides all students with opportunities to study a comprehensive curriculum that is customized to support the mission of the school. <i>The plan requests a waiver of 8 VAC 20-131-90 A-C</i>	√		
4. The school provides transition planning to help students be successful when they return to a regular school setting.	√		
5. Strategies used to evaluate student progress are aligned to the mission/purpose of the school and include academic achievement measures.	√		
6. Convincing evidence has been provided that students enrolled in the school have not been successful in other schools subject to all the accrediting standards.	√		
7. Students will be taught with highly qualified teachers who meet the Board of Education’s licensure requirements for instructional personnel.	√		

Alternative Accreditation Accountability Criteria:			
1. Rationale and documentation provide convincing evidence that the “special purpose” nature of the school precludes its being able to reach and maintain full accreditation status as defined in the <i>Regulations Establishing Standards for Accrediting Public Schools in Virginia</i> (SOA).	√		
2. Alternative accreditation criteria described in the plan include academic achievement measures that are objective, measurable, and directly related to the mission and purpose of the school.	√		
3. The plan includes use of statewide assessment student achievement results of English and mathematics.	√		
4. The plan meets the testing requirements of the SOA.	√		
5. The plan meets the testing requirements of NCLB and describes how the school plans to meet “adequate yearly progress” requirements of the federal law.	√		
6. The plan provides convincing evidence that all pre-accreditation eligibility criteria are met for standards in which waivers have not been requested.	√		
7. Waivers have been requested for accrediting standards that are not being met, and the rationale for the waivers are clear and appropriate for the mission/purpose of the school.	√		

FRED S. MORTON IV
SUPERINTENDENT OF SCHOOLS



POST OFFICE BOX 23120
RICHMOND, VIRGINIA 23223-042
(804) 652-3600

June 1, 2009

Dr. Patricia I. Wright
Superintendent of Public Instruction
Virginia Department of Education
P.O. Box 2120
Richmond, Virginia 23218-2120

Dear Dr. Wright:

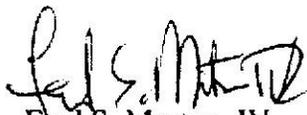
During the past few months, we have given consideration to renewing alternative accreditation plans for two alternative schools in Henrico County, New Bridge School and Mount Vernon Middle School. Mt. Vernon has been fully accredited for the past two years under the current alternative accreditation plan, and New Bridge School has been conditionally accredited during this same timeframe. These schools have, and will continue to serve students who have been unsuccessful in the traditional school setting.

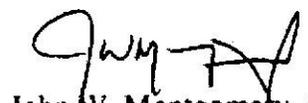
Our work during these recent months included a careful analysis of the delivery of instructional services at these two schools, participation in an academic review at New Bridge, and conversations with staff from the Department of Education. Based on our work and the needs of students served by these programs, we have developed an alternative accreditation plan based upon the program focus of these two schools to strengthen core skills in the areas of language arts and mathematics.

Our School Board approved these plans on Thursday, May 28, 2009. The plan for both schools, including associated waivers from the Standards of Accreditation, an evaluation sheet with page references, and the required signature sheet, are enclosed.

We are requesting approval of the enclosed alternative accreditation plans. Your consideration and support in this matter are greatly appreciated.

Sincerely yours,


Fred S. Morton, IV
Superintendent


John W. Montgomery, Jr.
Chairman, Henrico County School Board

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EDUCATION
RICHMOND, VIRGINIA

REQUEST FOR APPROVAL OF AN ALTERNATIVE ACCREDITATION PLAN

Regulations Establishing Standards for Accrediting Public Schools in Virginia, (8 VAC 20-131-10 et. seq.) set the minimum standards public schools must meet to be accredited by the Board of Education. Accreditation of public schools is required by the Standards of Quality (22.1-253.13:1 et. seq.). The annual accrediting cycle for public schools is July 1 through June 30. This cover sheet, with the supporting documentation, must be submitted in the Department of Education for review and recommendation to the Board at least 90 days prior to August 1 of the school year in which the plan is to be implemented.

8 VAC 20-131-280 of the Regulations Establishing Standards for Accrediting Public Schools in Virginia states (in part): Special purpose schools such as regional, special education, alternative, or career and technical schools that serve as the student's school of principal enrollment shall be evaluated on standards appropriate to the programs offered in the school and approved by the Board prior to August 1 of the school year for which approval is requested. Any student graduating from a special purpose school with a Standard, Advanced Studies, or Modified Standard Diploma must meet the requirements prescribed in 8 VAC 20-131-50.

The Board of Education, in its Guidelines Governing the Implementation of Certain Provisions of the Regulations Establishing Standards for Accrediting Public Schools in Virginia, states:

Schools described in this section are those that serve as a student's school of principal enrollment and where students are reported in fall membership for the school. Fall membership determines whether or not these schools are subject to the provisions of the accrediting standards; therefore, schools reporting fall membership are subject to the provisions of the standards. These schools may or may not administer Standards of Learning (SOL) tests.

In accordance with the provisions of 8 VAC 20-131-330 of the standards, local school boards may seek waivers of provisions of the standards to address the unique needs of these special purpose schools. Such requests may include an alternative accreditation plan. Applications must be submitted to the Board for consideration at least ninety days prior to August 1 of the school year. Requests for consideration must be accompanied by information that documents the need for approval of the request.

We, the undersigned, submit this request for review and approval by the Board of Education and understand that we are expected to appear before the Board to discuss the program and respond to questions raised.

May 28, 2009

Date Approved
by the Local School Board

June 1, 2009

Submission Date

[Handwritten Signature]

Signature
Chairman of the School Board

[Handwritten Signature]

Signature
Division Superintendent

Request for Approval of a Three-Year Alternative Accreditation Plan for Mount Vernon and New Bridge Middle Schools, Henrico County Public Schools

Purpose: To fully prepare each individual student in 6th, 7th, and 8th grades who is significantly behind in academic and behavior fundamentals to successfully access high school content and earn a standard or advanced diploma (not just pass 8th grade SOL tests). Mount Vernon and New Bridge Middle Schools will work in partnership with the Henrico County Public Schools and the community to assist participating students in getting back on track in their learning and behavior, enabling them to successfully return to their home schools or transition to a comprehensive high school academically and socially prepared. This partnership focuses on the most difficult students with learning and behavioral issues as a result of a variety of factors beyond the control of public education.

Vision / Mission: Mount Vernon and New Bridge Middle Schools will be educational environments where certain students who have not experienced academic success in a comprehensive elementary school or middle school setting, and who have been referred by their home schools, the Disciplinary Review Hearing Officer, or decided as their learning institution of choice can develop the academic and personal skills and habits that will prepare them for success in high school. Mount Vernon and New Bridge Middle Schools expose students to safe and stimulating alternative learning environments where they will grow academically through rigorous instructional and personal/social development programs provided for each child. Mount Vernon and New Bridge Middle Schools envision taking students who otherwise would not succeed in public education and turnaround to assist them in becoming successful life-long learners. Time in the program varies between a minimum of a completion of the year enrolled or a maximum of three years based upon needs of the students. The maximum capacity of each school program is 100 students.

Target Populations: Mount Vernon and New Bridge Middle Schools serve students aged 11 through 15 and grades 6-8 who are at least two years below grade level in reading and/or mathematics, over aged, retained one or more years, for whom no other appropriate services have worked and who are unlikely to make up academic deficits in a comprehensive middle school setting. Students identified for our non-traditional programs have failed to respond positively to the comprehensive schools' intervention strategies and have fallen into the at-risk category of being retained one or more years. Students are considered for placement in the nontraditional program based on recommendations of the child study committee in the home school, which has conducted a rigorous review of the student's academic performance, educational and family needs and behavioral challenges. In addition, the nontraditional schools may be selected by parents and students because the comprehensive school environment may not meet the present educational needs of the student.

Student Selection Criteria: Mount Vernon and New Bridge Middle Schools offer an individual Academic and Career Plan (ACP). The ACP is based upon learning strategies that fit the students' needs in a unique organized structure developed for students who have not been successful in the comprehensive school setting. Students can be enrolled in Mount Vernon and New Bridge Middle Schools by two pathways:

Administrative Placement: The Henrico County Public Schools Disciplinary Hearing Review Officer can place students at Mount Vernon and New Bridge Middle Schools through the process of a disciplinary hearing.

Application: A student may voluntarily apply to attend Mount Vernon or New Bridge Middle Schools or the student may be referred by the home comprehensive school. This process involves completing the application at the student's home school. The application includes all relevant academic, attendance, and behavior information as well as a copy of any Individualized Educational Plan (IEP) or child study minutes, if applicable.

Student selection and program placement is based upon evidence in the following areas:

- The type of instructional strategies needed to foster student achievement cannot be accommodated in a traditional setting.
- Academic performance is low or declining and the student is at-risk of being retained. The student may have failed one or more SOL or local criterion-reference tests, is over-aged, behind one or more grade levels.
- The student's behavior management needs are beyond the scope of programming that exists at any of our comprehensive schools.
- A series of in-school, short-, and long-term suspensions have not effectively modified the student's behavior.
- The student's behavior negatively affects the learning environment of others and impedes the teaching-learning process.
- The student has attendance and/or truancy issues.
- Prior to enrollment, the parent(s), student, and principal discuss the components of the nontraditional program. Signatures of the parent(s) and the student indicate their agreement to placement at Mt Vernon or New Bridge Middle School.

Program of Instruction: The middle school nontraditional programs present a middle school curriculum aligned with the state and local standards in safe, supportive, small learning communities to provide quality-learning opportunities affording students the skills and behaviors necessary to become lifelong learners. Students are offered appropriate grade-level courses in English/reading/writing, science, mathematics, and social science and the electives of art, physical education, and career and technical education (CTE). In addition, students receive instruction in workplace readiness, basic skill instruction in the core content subjects and personal social development.

- An Academic and Career Plan (ACP) is developed for each student attending Mount Vernon and New Bridge Middle Schools. This plan is designed to address the specific academic and behavioral needs of the student, and includes performance goals to support the transition to a comprehensive instructional setting.
- The Virginia Standards of Learning (SOL) are taught through grade level courses in the four academic areas: English/reading/writing, science, math and social science.

Additionally, electives are required in reading and math for students performing two or more grade levels below as indicated on formal assessments.

- Before enrollment, during an orientation meeting, each student and parent meets with the principal, school counselor and grade level team leader, to review the child's record of past performance and to develop the ACP for his/her success at Mount Vernon / New Bridge.
- Upon enrollment, each student participates in a two-day transition program designed to review the child's record of past performance, administer pre-assessment tests in core areas, and to begin the development of the ACP. The school counselor assists the student and parent in planning for academic, attendance/truancy, and behavior improvements to address the student's specific needs. These plans guide students during their stay at the middle school alternative (nontraditional) programs so that they may successfully transition to the next placement at a comprehensive school.
- Core content assessments are completed upon entering the program to assist in the development of the ACP for academic success. Student growth is monitored weekly during team meetings. As students' progress is monitored, appropriate intervention and remediation strategies are developed, recorded in the ACP and deployed as deemed necessary from data analysis.
- Programs Offered:
 - Career and Technical Education (CTE), which is designed to help students explore career options, design/build products following a design brief, work in teams to accomplish course objectives, explore occupational areas and education programs for CTE within the 16 career families. Those students who participate in the CTE experiences will be well prepared to take advantage of similar opportunities at the high school level, or at either of the school division's technical centers or at Virginia Randolph Community High School.
 - The Greenhouse Program – “Go Green”, which is designed to assist students in developing an awareness of the relationship between technology and science, with a focus on the nature of science and how it is applied. It involves strong integration of reading, writing, and math skills. The “Go Green” course involves the topics of technology, biotechnology, transportation systems, alternative energy, aerospace/flight, and manufacturing.
 - Extended Learning Day, which includes tutorial services and exposure to the arts, career awareness and involvement in community service projects. It is an expectation that all students attending Mount Vernon and New Bridge Middle Schools will take advantage of the 4-days a week after-school program.
- Each student will be diagnostically pre-tested upon program entry in reading and mathematics using the Degrees of Reading Power (DRP) or other identified reading assessment, and the Algebra Readiness Diagnostic Test (ARDT) to assist in developing the ACP. All other pre-existing assessment information (SOL / Henrico Assessment Test) results will be utilized in developing the ACP.
- Individual course schedules will be designed to assist students to achieve their highest potential.
- Teachers assigned to Mt. Vernon and New Bridge will be highly qualified to teach in their respective content areas.

- Students complete rigorous work in the core subject areas of math, science, English and history through best practice based instructional strategies designed to meet the diverse academic needs of students.
- Instructional staff attends school-level staff development scheduled four weeks in August preceding the beginning of school. In addition, staff development is tailored to teacher needs and requests, and each 3rd Tuesday is devoted to staff development. Staff also attends district-wide staff development.
- Instructional staff is trained in how to use data to make instructional decisions.
- Six 55-minute blocks comprise the middle school day, totaling 5 hours and 30 minutes of direct daily instruction, not to include morning arrival, lunch, and dismissal.
- Grade level teams meet weekly and content teams meet monthly to discuss and plan instructionally. In addition, grade-level team members utilize weekly meetings to disaggregate data, monitor student academic success, discuss behavior issues, attendance, and share curriculum ideas.
- The goal is not to exceed the PTR of 10:1 in order to better serve the unique needs of the students at the schools.
- Student support services include a focus on self-management and adjustment skills. The 8th grade Health Standards of Learning serve as the foundation of curriculum and counseling in self-management, as well as, the life skills curriculum.
- All students participate in organized health and physical education activities.
- All students participate in an organized art program.
- Career exploration in CTE includes the use of ACT's *Explore* interest and aptitude inventory that each student will take for the purpose of planning a high school course of study. In addition, Career Days will be held at the schools annually.

Student Transition Process

Transition into the alternative (non-traditional) setting

- Upon enrollment at Mount Vernon and New Bridge in the two-day orientation program, students will develop Academic and Career Plans (ACP).
- Plans will be reviewed by the counselor, principal and the team leader who is responsible for filing the plans.
- Quarterly conferences conducted by the team leader, principal and counselor will be held with each student to review progress toward established goals and transition.

Transition back to the comprehensive setting

- Based upon student progress, plans are put in place during the last nine weeks of the student's stay at Mount Vernon and New Bridge to prepare him/her for a return to the comprehensive school setting.
- The principal, counselor, and team leader reviews the student's record pertaining to academics, attendance and discipline to determine which students have met their goals in a satisfactory manner.
- The counselor makes contact with the designated counselor of each home school preparing the students to return by developing schedules and a plan to return the students'

record, making contact with parents, and scheduling meetings between the comprehensive school counselors and Mount Vernon and New Bridge students.

- For a period of 180 days after transitioning, a structured support system is provided by Mount Vernon and New Bridge to ensure each student meets with success.

Waivers Requested: These innovative middle years schools will require a waiver from the following state standard:

- 8 VAC 20-131-90 A, B, and C pertaining to the instructional program in middle schools. To provide the instructional time needed in the core content areas, a waiver is requested of the foreign language elective requirement.

Student Assessment

The Virginia Standards of Learning (SOL) are taught through grade level courses in the four academic areas: Language Arts, math, science, and social science. Benchmark 4.5 and 9 week assessment data will be used to monitor student progress toward mastery of the SOL. All students will be required to take end-of-grade and/or end-of-course SOL tests associated with the courses taken in all four content areas at all three grades. Students will be targeted for remediation throughout the year to support the rating of full accreditation and achieving adequate yearly progress.

NCLB – Adequate Yearly Progress

The alternative accreditation plan holds the school accountable for student achievement through an index based upon the instructional program and needs of students served. The plan provides a basis for determining state accreditation ratings for a three year period beginning in 2010-11 based upon student performance on SOL tests and other measures beginning in 2009-10. No changes to the application of the federal requirements related to measuring Adequate Yearly Progress for the No Child Left Behind legislation are requested.

Alternative Accreditation Plan

All students will improve their academic performance so that they may successfully transition back to their home school environment through intensive focus on the core areas of Language Arts and mathematics and through achieving certain behavioral and conduct modifications that are indicative of being a responsible and productive student in an academic environment. An alternative accreditation index will measure student achievement based upon progress made in all program areas and is defined as follows.

<i>Performance Objective</i>	<i>Performance measure</i>
<i>Core Achievement Objectives:</i>	
<i>1. The number of students in grades 6-8 passing SOL reading and writing tests by proficiency level.</i>	<i>Weighted index of SOL test scores of students enrolled for 2 academic years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the reading SOL tests in grades 6-8</i>

2. The number of students in grades 6-8 passing SOL mathematics tests by proficiency level.	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the SOL mathematics tests in grades 6-8
Core Other Academic Indicators:	
3. The number of students in grade 8 passing the Algebra I SOL Assessment by proficiency level.	Weighted index of students enrolled for 2 academic years (at least 4 semesters) achieving at the proficient and advanced levels on the SOL end-of-course exams in Algebra I
4. The number of students in grades 6-8 passing science SOL tests by proficiency level.	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in science
5. The number of students in grades 6-8 passing history and social science SOL tests by proficiency level.	Weighted index of students enrolled for 2 academic years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in and history and social science
Core Other Indicator Objectives:	
6. Average daily attendance meets or exceeds 80 percent	Average Daily Attendance rates for students
7. Increase percentage of students successfully transitioned into regular school setting	Successful transition shall be measured by a student transitioning to a regular school setting who passes all subjects/courses in the transition school during the first semester at that school
8. Decrease number of grade 6-8 discipline referrals	Incident data for MV/NB students
Optional Reach Objectives:	
9. Increase the number of middle school students taking Algebra I	Number of students in grades 8 taking Algebra I increases annually
10. Increase the number of parent volunteers	Number of parents assisting with school operations increases annually
11. Increase the number of students participating in the Extended Day Programs	Number of students attending the Extended Day Programs increases annually

Annual Performance Targets

Language Arts/Reading and Writing	75%
Math	70%

Alternative Accreditation Index Point System:

Core Achievement Objectives		
<i>1 and 2. Weighted index of students enrolled of students enrolled for 2 years (4 semesters) achieving at a scaled score of 375-399, proficient, and advanced levels on the SOL assessments in reading, writing and mathematics</i>		
SOL Scaled Score	SOL Proficiency Level	Points Awarded Each SOL Score
500-600	Advanced	100
400-499	Proficient	90
375-399		70
Below 375		0
Core Other Academic Objectives (9 points maximum)		

3. Weighted index of students enrolled for 2 years (4 semesters) at the proficient and advanced levels on the Algebra I SOL Assessment	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point
4. Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in science	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point
5. Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in history and social science	Percent of students passing at the proficient and advanced levels and points earned: 70% and above.....3 points 60 – 69%.....1 point
Core Other Indicator Objectives (6 points maximum)	
6. Average daily attendance meets or exceeds 80 percent	2 points
7. Increase the percentage of students successfully transitioned into regular school setting	2 points
8. Decrease number of grade 6-8 discipline referrals	2 points
Optional Reach Objectives (3 points maximum)	
9. Increase the number of middle school students taking Algebra I	1 point
10. Increase the number of parent volunteers	1 point
11. Increase the number of students participating in the Extended Day Programs	1 point

Alternative Accreditation Index Score Calculations Illustrated:

Example: Language Arts (reading and writing combined) Index Score

No. of Student Scores	SOL Proficiency Level	Points Awarded Each SOL Score	Points Awarded
30	Advanced	100	3,000
60	Proficient	90	5,400
25	375-399	70	1,750
15	Below 375	0	0
(a) SOL Scores Points Awarded			10,150
(b) Total No. of Student Scores			130
(c) SOL Index Points = Total Score Points (a) divided by Total No. Scores (b)			78.1
Core Other Academic Objectives(9 points maximum)			
3. Weighted index of students enrolled for 2 years (4 semesters) at the proficient and advanced levels on the Algebra I SOL Assessment			0
4. Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in science			68% = 1
5. Weighted index of students enrolled for 2 years (4 semesters) achieving at the proficient and advanced levels on the SOL assessments in history and social science			70% = 3
Core Other Indicator Objectives (6 points maximum)			
6. Average daily attendance meets or exceeds 80 percent			2

Henrico County Public Schools

7. Increase percentage of students successfully transitioned into regular school setting	0
8. Decrease number of grade 6-8 discipline referrals	2
Optional Reach Objectives (3 points maximum)	
9. Increase the number of middle school students taking Algebra I	0
10. Increase the number of parent volunteers	1
11. Increase the number of students participating in the Extended Day Programs	1
(d) SOL Index Points = Total Score Points (a) divided by Total No. Scores (b) + 10 additional points (maximum 18)	88.1

Example: Mathematics Index Score

No. of Student Scores	Proficiency Level	Points Awarded Each SOL Score	Points Awarded
5	Advanced	100	500
60	Proficient	90	5,400
25	375-399	70	1,750
10	Below 375	0	0
(a) SOL Score Points Awarded			7,650
(b) Total No. of Students Scores			100
(c) SOL Index Points = Total Score Points (a) divided by Total No. Scores (b)			76.5
(d) SOL Index Points = Total Score Points (a) divided by Total No. Scores (b) + 10 additional points (maximum 18)			86.5

Example: Determination of School Alternative Accreditation Rating

Content Area	Index Score	Met Alternative Accreditation Requirement
Language Arts	88.1	Yes
Mathematics	86.5	Yes
School Accreditation Rating:		Fully Accredited
Fully Accredited		
Accredited with Warning		
Denied Accreditation		

Board of Education Agenda Item

Item: _____ D. _____

Date: June 25, 2009

Topic: First Review of Proposed Guidelines for the Neighborhood Assistance Program for Education

Presenter: Mr. Paul Raskopf, Director, Division of Special Education and Student Services

Telephone Number: (804) 225-2080

E-Mail Address: paul.raskopf@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:

Effective July 1, 2009, the Neighborhood Assistance Act (§ 58.1-439) requires that the Virginia Department of Education will administer the distribution of tax credits to qualifying corporations and individuals for donations to non-profit organizations implementing approved education programs. The Act allocates \$4.9 million for education proposals for approval by the Superintendent of Public Instruction. The Board of Education was authorized by the Act to adopt guidelines for the approval or disapproval of proposals by neighborhood organizations.

Summary of Major Elements

In accordance with the Act, the guidelines shall provide for the equitable allocation of the available amount of tax credits among the approved proposals submitted by neighborhood organizations. To be eligible for tax credits, 50 percent of the persons served by the organization must meet the definition of impoverished people as defined in § 58.1-439.18.

The proposed guidelines require that at least 50 percent of an approved organization's expenditures are for the purpose of providing scholastic instruction or scholastic assistance to impoverished people. The proposed guidelines outline the program's purpose, eligibility criteria for organizations, and procedures for submitting proposals and administration of tax credits.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the proposed guidelines and authorize staff to distribute the guidelines as presented.

Impact on Resources:

No additional funds will be needed.

Timetable for Further Review/Action:

The Department of Education will post the guidelines on its Web site and implement the guidelines effective July 1, 2009.

Virginia Board of Education

Guidelines for Neighborhood Assistance Act Tax Credit Program for Education

Chapter 851, Virginia Acts of Assembly (2009), established a program, known as the *Neighborhood Assistance Act tax credit program*, whereby individuals or businesses may receive tax credits for eligible contributions made to Neighborhood Organizations whose primary function is providing neighborhood education assistance for impoverished people. The Act language specified that the Department of Education is to issue guidelines for the approval or disapproval of proposals and administration of this program which is effective July 1, 2009.

The Neighborhood Assistance Act tax credit program for education is established in §§ 58.1-439.18, 58.1-439.20, 58.1-439.21, 58.1-439.22, 58.1-439.23, and 58.1-439.24 of the Code of Virginia.

Definitions:

Under this Program, definitions are set forth in § 58.1-439.18 and further include the following:

"Contracting services" means the same as the definition set forth in § 58.1-439.18 except that clause (i) of such definition shall not apply for purposes of these guidelines, and for purposes of clause (ii) of such definition "buildings" means buildings used by neighborhood organizations for the purpose of providing scholastic instruction or scholastic assistance to impoverished people.

"Job training" means the same as the definition set forth in § 58.1-439.18. The term shall include scholastic instruction or scholastic assistance.

"Neighborhood education assistance" means providing education.

"Primary function" means at least 50% of total persons served are impoverished people, and at least 50% of total expenditures are for the purpose of providing scholastic instruction or scholastic assistance to impoverished people.

Purpose; procedure for submitting proposals; eligibility criteria; termination of approval of program of a neighborhood organization; appeal procedure:

- A. The purpose of the Neighborhood Assistance Act tax credit program for education is to encourage businesses and individuals to contribute directly to neighborhood organizations whose primary function is providing neighborhood education assistance for impoverished people.
- B. Neighborhood organizations wishing to obtain an allocation of tax credits under this program must submit a proposal as set forth under § 58.1-439.20, of the Code of Virginia and provide the following information to the Superintendent of Public Instruction:

1. A description of their eligibility as a neighborhood organization, the education program to be conducted, the impoverished people to be assisted, the estimated amount that will be donated to the program, and plans for implementing the program.
 2. Proof of the neighborhood organization's current exemption from income taxation under the provisions of § 501 (c) (3) or § 501 (c) (4) of the Internal Revenue Code, or the organization's eligibility as a community action agency as defined in the Economic Opportunity Act of 1964 (42 USC § 2701 et seq.) or housing authority as defined in § 36-3 of the Code of Virginia.
 3. A copy of the neighborhood organization's current audit, review, or compilation as required by OMB Circular No. A-133 as may be applicable to nonprofit organizations; a copy of the organization's current federal form 990; a current brochure describing the organization's programs; and a copy of the annual report filed with the Department of Agriculture and Consumer Services' Division of Consumer Protection.
 4. A statement of objective and measurable outcomes that are expected to occur and the method the organization will use to evaluate the education program's effectiveness.
- C. To be eligible for participation in the Neighborhood Assistance Act Tax credit Program for Education, the applicant must meet the following criteria:
1. Applicants must have been in operation as a viable entity, providing neighborhood assistance for impoverished people for at least 12 months prior to the time an application is submitted to the Superintendent of Public Instruction.
 2. Applicants must be able to demonstrate that at least 50% of the total persons served are impoverished people, and at least 50% of total expenditures are for the purpose of providing scholastic instruction or scholastic assistance to "impoverished people."
 3. Applicant's audit must not contain any significant findings or areas of concern for the ongoing operation of the neighborhood organization.
- D. 1. For the time period July 1, 2009 to June 30, 2010, the Department shall allocate all available tax credits by July 1, 2009, or as soon thereafter as practicable.
2. Beginning in calendar year 2010 and thereafter, the application period will start no later than March 15 of each year. All applications must be received by the Virginia Department of Education no later than the first business day of May. The program year will run from July 1 through June 30 of the following year.
- E. Those applicants submitting proposals, including all required information and reports and meeting the eligibility criteria described in this section will be notified by the Superintendent of Public Instruction of the approval or disapproval of such proposals.

- F. The Superintendent of Public Instruction may request the assistance of the Department of Taxation for purposes of determining whether or not anticipated donations for which tax credits are requested by a neighborhood organization likely qualify as a charitable donation under federal tax laws and regulations.
- G. The Superintendent of Public Instruction may terminate a neighborhood organization's eligibility to participate under the Neighborhood Assistance Act tax credit program for education based on a finding of program abuse involving illegal activities or fraudulent reporting of contributions.
- H. Any neighborhood organization that disagrees with the disposition of its application, or its termination as an approved organization, may appeal to the Superintendent of Public Instruction in writing for reconsideration. Such requests must be made within 30 days of the denial or termination. The Superintendent of Public Instruction will act on the request and render a final decision within 30 days of the request for reconsideration.
- I. Actions of the Superintendent of Public Instruction or the Department of Education relating to the review of neighborhood organization proposals and the allocation of tax credits to proposals shall be exempt from the provisions of the Administrative Process Act (§ 2.2-4000 et seq.). Decisions of the Superintendent of Public Instruction shall be final and not subject to review or appeal.

Allocation of tax credits:

- A. The available tax credits will be allocated equitably among the approved proposals submitted by neighborhood organizations as set forth in § 58.1-439.20 of the Code of Virginia.
- B. If the Superintendent of Public Instruction approves a proposal submitted by a neighborhood organization, the organization shall make the allocated tax credit amounts available to business firms and individuals making donations to the approved program. A neighborhood organization shall not assign or transfer an allocation of tax credits to another neighborhood organization without the approval of the Superintendent of Public Instruction. Such action will be cause for termination of a neighborhood organization's eligibility to participate under the Neighborhood Assistance Act tax credit program for education.
- C. During the program year, neighborhood organizations that have used at least 75% of their allocation of tax credits for education programs may request additional allocation of tax credits for education purposes within the limits described in the Act. Requests will be evaluated on a basis of reasonableness and tax credits will be reallocated on a first-come basis as they are available.
- D. Tax credits to be allocated are limited to the amounts as set forth in § 58.1-439.20. If the amount of tax credits requested by neighborhood organizations and approved by the Superintendent for education proposals is less than the total amount allocated by law for education proposals, then the balance of such amount shall be allocated to programs for approval by the Commissioner of the Department of Social Services.
- E. Organizations may release all or a portion of their unused tax credit allocation to be reallocated in accordance with subsection C of this section.

Value of donations:

- A. The neighborhood organization with an approved education proposal is responsible for maintaining documentation as required by the Virginia Department of Education to verify the date and value of all donations.
- B. The value of money, property, motor vehicles, professional services and contracting services donated by a business firm during its taxable year shall be valued in accordance with § 58.1-439.21.
- C. The value of donated rent/lease of the neighborhood organization's facility must be reasonable and cannot exceed the prevailing square footage rental charge for comparable property.
- D. Donations from individuals eligible for tax credits are limited to monetary donations and donations of marketable securities, which shall be valued at fair market value as of the date of the donation.

Minimum and maximum amounts:

- A. Tax credits granted to business firms are subject to the minimum and maximum amounts and other provisions set forth in § 58.1-439.21 of the Code of Virginia.
- B. Tax credits granted to individuals are subject to the minimum and maximum amounts and other provisions set forth in § 58.1-439.24 of the Code of Virginia.
- C. Any tax credit not useable for the taxable year the donation is made may be carried over to the extent useable for the next five succeeding taxable years or until the credit has been utilized, whichever is sooner.
- D. The neighborhood organization shall complete a certification on a form prescribed by the Department of Education. The certification shall identify the date, type, donor and value of the donation eligible for tax credits.
- E. Upon receipt and approval of the certification, the Superintendent of Public Instruction shall issue a tax credit certificate to the donor eligible for the tax credit.

Determining date of donation:

- A. The date of donation for cash, marketable, securities and property to be used by the neighborhood organization is the date used for federal income tax purposes according to IRS regulations.
- B. The date of donation for professional services or contracting services is the dates such services are rendered. The neighborhood organization with an approved education proposal is responsible for maintaining documentation as required by the Virginia Department of Education to verify the date and value of all services donations.
- C. The date of donation for donated rent/lease is the effective date of the lease.

the House Education Committee formally requested that the department develop a template for all school divisions to use to display expenditure information. In response to this request, the department developed and provided a template to the chairman and Delegate Poindexter prior to commencement of the 2009 General Assembly.

Summary of Major Elements: The template is a spreadsheet containing information already reported in every school division's Annual School Report to the department. A copy of the template is attached. Department staff shared the proposed template with local school division representatives during the 2009 General Assembly.

Superintendent's Recommendation: The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the proposed template so that it can be distributed to local school divisions. Furthermore, the Board authorizes the Superintendent of Public Instruction to make minor modifications to this template, as may be necessary in the future, to conform to the format of the Annual School Report.

Impact on Resources: The impact on resources for the proposed expenditure template is expected to be minimal.

Timetable for Further Review/Action: Upon approval by the Board of Education, staff will disseminate this information and the template to local school divisions so that they can use this template to make the annual expenditure reports available to the public and post the reports on their Web sites.

**TEMPLATE:
ANNUAL REPORT OF EXPENDITURES**

SCHOOL DIVISION NAME:		
SUMMARY OF EXPENDITURES AND BALANCES – FISCAL YEAR _____		
CLASSIFICATION OF EXPENDITURES:	Fiscal Year _____ Total	PERCENT OF TOTAL EXP.
INSTRUCTION		0.00%
ADMINISTRATION, ATTENDANCE AND HEALTH		0.00%
PUPIL TRANSPORTATION		0.00%
OPERATION AND MAINTENANCE SERVICES		0.00%
SCHOOL FOOD SERVICES AND OTHER NON- INSTRUCTIONAL OPERATIONS		0.00%
FACILITIES		0.00%
DEBT SERVICE AND FUND TRANSFER		0.00%
TECHNOLOGY		0.00%
CONTINGENCY RESERVE		0.00%
TOTAL EXPENDITURES	0.00	0.00%
FISCAL YEAR _____ - BALANCES AT CLOSE OF YEAR		
DESCRIPTION	AMOUNT	
SCHOOL OPERATING FUND		
SCHOOL DEBT FUND		
SCHOOL CONSTRUCTION FUND		
TEXTBOOK FUND		
TEXTBOOK ESCROW FUND		
LOTTERY ESCROW FUND		
SCHOOL CONSTRUCTION ESCROW FUND		
SCHOOL FOOD FUND		
CARRY-OVER STATE FUNDS FROM STATE AGENCIES		
DISTRICT FUNDS		
FEDERAL FUNDS		
OTHER FUNDS		
TOTAL END-OF-YEAR BALANCES	0.00	
TOTAL EXPENDITURES AND BALANCES	0.00	

REVENUES REPORTED IN FISCAL YEAR ____

Fiscal Year ____ Revenues:	
Sales Tax Receipts	
State Funds	
Federal Funds	
City - County Funds	
District Funds	
Other Funds	
Loans, Bonds, etc.	
Total Receipts	0.00

BALANCES AT BEGINNING OF YEAR	AMOUNT
School Operating Fund	
School Debt Fund	
School Construction Fund	
Textbook Fund	
Textbook Escrow Fund	
Lottery Escrow Fund	
School Construction Escrow Fund	
School Food Fund	
Carry-Over State Funds from State Agencies	
District Funds (Capital Outlay and Debt Service)	
Federal Funds	
Other Funds	
Total Balances	0.00
Total Receipts and Balances	0.00

INSTRUCTIONS - TEMPLATE FOR THE ANNUAL REPORT OF EXPENDITURES

- I. The information contained in this sheet is derived from the Annual School Report (ASR) submitted every September by school divisions to the Virginia Department of Education, in accordance with § 22.1-81, Code of Virginia.
- II. The two-sheet template is modeled after the ASR template. To complete the sheet, a school division would need to review its corresponding entries in the Revenues section and Recapitulation section of the ASR and copy the entries into the sheet.
- III. In the Summary and Revenues section, the totals for the following sections will calculate automatically:
 - 1) Total Expenditures;
 - 2) Percent of Total Expenditures;
 - 3) Total End-of-Year Balances; and
 - 4) Total Expenditures and Balances.
- IV. In the Revenues section, the totals for the following sections will calculate automatically: 1) Total Receipts; 2) Total Balances; and 3) Total Receipts and Balances.

Board of Education Agenda Item

Item: _____ F. _____

Date: _____ June 25, 2009 _____

Topic: First Review of Revisions to Criteria for the Virginia Index of Performance, Virginia's Incentive Program to Encourage and Recognize School Accountability Performance and Competence to Excellence

Presenter: Dr. Deborah L. Jonas, Executive Director for Research and Strategic Planning

Telephone Number: 804-225-2067

E-Mail Address: deborah.jonas@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: July 23, 2009 (date)

Previous Review/Action:

No previous board review/action

_____ Previous review/action
date _____
action _____

Background Information:

The *Regulations Establishing Standards for Accrediting Public Schools in Virginia* (8VAC 20-131-325) authorize the Board of Education to establish guidelines for recognizing and rewarding school accountability performance.

In July 2007, the Board of Education established the *Virginia Index of Performance (VIP)* incentive program to recognize and reward fully accredited schools and school divisions that make significant progress toward achieving specific measurable goals and objectives established by the Board of Education and supported by the Governor.

Student achievement is a fundamental component in determining the accreditation status of Virginia's public schools. For more than a decade in Virginia, student performance has been measured by achievement on the Standards of Learning (SOL) tests or additional assessments approved by the Board of Education. A school achieves fully accredited status primarily by meeting pass rates established for all students in four core academic content areas. The VIP program was intended to provide schools and divisions with incentives to strive for higher levels of achievement for all of our children.

VIP is intended to measure the extent to which students are progressing towards advanced proficiency levels in reading, mathematics, science, and history and social science and on other indicators of school and student performance. Schools and school divisions are eligible for VIP awards by meeting applicable federal and state achievement benchmarks (school accreditation and currently adequate yearly progress or AYP) for two consecutive years.

The VIP achievement measure is calculated using weighted student scores on Standards of Learning assessments. In the calculation, scores are weighted according to the achievement levels of basic, proficient, and advanced with the advanced level having the highest weight. The VIP score is determined by aggregating student scores in all of the content areas and adding up to five additional VIP points to the achievement measure. The additional VIP points may be earned when a school or division meets the following performance objectives established for the program or exceeds state goals in the target areas:

- Increase the percentage of third graders reading on grade level (95% state goal);
- Increase the percentage of students enrolled in Algebra I by grade 8 (45% state goal);
- Increase the percentage of high school students taking Advanced Placement, International Baccalaureate, and dual enrollment courses (25% state goal);
- Increase the number of career and technical industry certifications, state licenses, or successful national occupational assessment (15,000 state goal);
- Increase the percentage of high school graduates earning an Advanced Studies Diploma (57% state goal);
- Increase the percentage of students who receive a high school diploma recognized by the Board of Education (80% state interim target);
- Increase the percentage of schools that are fully accredited and making Adequate Yearly Progress (divisions only; 100% state goal);
- Increase the percent of at-risk four-year-olds who are being served by the Virginia Preschool Initiative (VPI; divisions only; 100% state goal);
- Increase the percentage of students in each student subgroup achieving at higher levels of proficiency on state assessments;
- Increase the percentage of students maintaining literacy proficiency throughout their adolescent years (95% state goal);
- Increase the percentage of schools offering foreign language instruction in the elementary grades; and
- Increase participation in the Governor’s Nutrition and Physical Activity Scorecard Awards Program.

The chart below shows the number of schools and divisions earning each type of award under the existing criteria for each of the two years for which the program was in place.

Number of schools and school divisions earning VIP awards:

Award year	Governor’s Awards for Educational Excellence		Board of Education Awards					
			Excellence		Competence to Excellence		Rising Star	
	Schools	Divisions	Schools	Divisions	Schools	Divisions	Schools	Divisions
2008-2009	162	0	544	24	276	10	2	0
2007-2008	89	0	475	19	322	25	N/A	N/A

N/A: Not applicable. Rising star awards were not available in the first year of the program.

Summary of Major Elements

One of the goals of the VIP program is that “high school students earn a high school diploma, especially advanced studies diplomas, within four years.” At the time the program was established, the best available information on graduation rates was estimates of the four-year rate. Under the established program guidelines, schools and divisions that have a graduation rate of 80 percent or higher, or that increase their graduation rate from the previous year can earn up to one bonus point added to their VIP achievement score. As well, schools can earn up to one bonus point if they increase the percent of students who earn advanced studies diplomas or meet or exceed the state goal of 57 percent.

In October 2008, the Department of Education first published the Virginia On-Time Graduation Rate and in March 2009 published the full cohort report to document the status of all students in the on-time graduation cohort, including the cohort dropout rate. The proposed recommendations would update VIP award criteria and establish minimum criteria for each award level using data newly available from the cohort report, including graduation and dropout rates.

The VIP program was also designed as an incentive program that encourages schools to support more students moving from competence to excellence in all of the core academic content areas. To further emphasize the Board’s commitment to the importance of each core content area, the proposed updates provide criteria that consider each core academic content area separately.

The primary objectives for the proposed revisions to the VIP award program were the following:

1. The minimum eligibility criteria for VIP awards would remain the same as current requirements. That is, to be eligible for VIP, schools would have to be fully accredited and make AYP for two consecutive years; school divisions would have to make AYP for two consecutive years.
2. Retain incentives for schools to:
 - a. Have more students increase their proficiency levels over time (e.g., move from proficient to advanced proficient); and
 - b. Achieve as many of the “additional indicators” as possible for their school level.
3. Enhance the incentives for students to earn high achievement levels in each academic content area (English/reading, mathematics, science, and history and social sciences).
4. Incorporate new cohort report data into VIP criteria.

Proposed updates to the VIP award criteria

1. In order to earn a Governor’s Award for Educational Excellence, eligible schools and school divisions with a graduating class would be required to:
 - a. Earn a minimum of 80 index points on the weighted VIP index points, using the current weightings¹, in EACH of the following content areas:
 - English/reading (combined reading and writing)
 - Mathematics
 - Science
 - History and Social Sciences; *and*
 - b. Meet the current VIP excellence targets for Governor’s awards as specified in the currently approved VIP program; *and*
 - c. Meet or exceed the state goal for on-time high school graduation rate, currently established at 80 percent on the Governor’s scorecard; *and*

¹ Current weightings are 0 points for below basic; 25 basic; 75 proficient; 100 advanced proficient.

- d. The combined percent of cohort students who dropped out or have unconfirmed status is 10 percent or less.
2. To earn a Board of Education VIP Excellence Award, eligible schools and divisions would have to meet the following criteria:
 - a. Earn a minimum of 80 index points on the weighted VIP index points, using the current weightings, in EACH of the following content areas:
 - English/reading (combined reading and writing)
 - Mathematics
 - Science
 - History and Social Sciences; *or*
 - b. Achieve a minimum of 80 index points in each content area using the total number of additional index points earned through the program to meet the minimum of 80 total VIP points in each content area; and
 - c. Meet or exceed the state goal for on-time high school graduation rate, currently established at 80 percent on the Governor’s scorecard; and
 - d. The combined percent of cohort students who dropped out or have unconfirmed status is 10 percent or less.
 3. To earn a Board of Education VIP Competence to Excellence award, eligible schools and divisions would have to meet the following criteria:
 - a. Earn a minimum of 75 index points on the weighted VIP index points, using the current weightings, in EACH of the following content areas:
 - English/reading (combined reading and writing)
 - Mathematics
 - Science
 - History and Social Sciences; *or*
 - b. Achieve a minimum of 75 index points in each content area using the total number of additional index points earned through the program to meet the minimum of 75 total VIP points in each content area; and
 - c. Meet or exceed the state goal for on-time high school graduation rate, currently established at 80 percent on the Governor’s scorecard; or
 - d. Have a combined percent of cohort students who dropped out or have unconfirmed status of 10 percent or less.
 4. To earn a Board of Education VIP Rising Star Award, eligible schools and divisions would have to meet the following criteria:
 - a. Demonstrate significant improvement in the VIP index in each academic content area in which they earn less than 75 index points:
 - English/reading (combined reading and writing)
 - Mathematics
 - Science
 - History and Social Sciences; *and*
 - b. Meet or exceed the state goal for on-time high school graduation rate, currently established at 80 percent on the Governor’s scorecard; or
 - c. Have a combined percent of cohort students who dropped out or have unconfirmed status of 10 percent or less.

The table below illustrates how the data from each core content area and the additional index points can be used to achieve the criteria for Board of Education VIP Excellence and Competence to Excellence

awards. This approach would be used to determine awards when the weighted VIP index in one or more content areas falls below the proposed criteria of 80 and 75 for excellence and competence to excellence awards, respectively.

Content Area				Total Additional VIP index points earned	Additional index points needed for Excellence award	Additional index points needed for Competence to Excellence award	VIP Award
English/reading Weighted VIP index	Mathematics Weighted VIP index	History and Social Science Weighted VIP index	Science Weighted VIP index				
78	80	79	80	5	3	NA	Board of Education Excellence Award
74	80	75	74	3	17	2	Board of Education Competence to Excellence Award

The Department proposes to implement the revised VIP award criteria for awards given in the 2009-2010 school year.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education accept for first review the proposed updates to the VIP program.

Impact on Resources:

The Department can absorb the costs to adjust the awards criteria for the VIP program.

Timetable for Further Review/Action:

The Department intends to bring to the Board the final review of changes to the VIP program awards criteria in July 2009.

Board of Education Agenda Item

Item: _____ G. _____

Date: _____ June 25, 2009 _____

Topic: First Review of Pupil Transportation Specifications for School Buses

Presenter: Mr. Kent Dickey, Assistant Superintendent for Finance

Telephone Number: 804-225-2025 **E-Mail Address:** Kent.Dickey@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: July 23, 2009

Previous Review/Action:

No previous board review/action

____ Previous review/action

 date _____

 action _____

Background Information:

The Regulations Governing Pupil Transportation, as approved in January 2004, deleted the sections that detailed the technical specifications for school buses and made them a separate document that requires periodic approval by the Board of Education. This permits the Department of Education to revise and update the bus specifications more efficiently than would be permitted under the process for revising regulations. It also permits the specifications to be refreshed more frequently to recognize new or emerging technology. The last revisions to the specifications were approved by the Board of Education on July 17, 2008. The design and manufacture of buses and school activity vehicles must conform to the specifications in effect on the date of procurement. The specifications for school buses are presented to the Board of Education for approval as necessary.

Summary of Major Elements:

Attachment A is a summary of the proposed changes to the specifications. The full specifications (Attachment B) have been updated and revised to include recent changes in equipment and technology. The proposed changes were developed in consultation with the Department's Specifications Committee, which is comprised of pupil transportation representatives from school divisions across the state. None of the changes represent significant deviations from standard industry practices. All of the recommended specifications comply with the safety requirements of the National Highway Traffic Safety Administration.

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 technology available on 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 are indicated in bold lettering and deletions are indicated by strikethroughs. The proposed revisions to 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 23, 2009, and will be considered in the final version of the specifications presented to the Board. It is anticipated that the final specifications will be presented to the Board at its July 23, 2009, meeting with a request for final approval.

The primary recommendation of the Specifications Committee in these proposed revisions is a recommendation to eliminate hydraulic disc brakes as an option on 65-passenger conventional buses due to safety and performance considerations.

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 proposed revisions to 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 23, 2009, and will be considered in the final version of the specifications presented to the Board. It is anticipated that the final specifications will be presented to the Board at its July 23, 2009, meeting with a request for final approval.

**Proposed Revisions to Virginia School Bus Specifications
(to be effective October 1, 2009)**

Section/Page	Proposed Change
Sec 1 / Pg 1	added Notice section
Sec 1 / Pg 2	added General Information section
Sec 1 / Pg 4	added school/activity bus definition
Sec 2 / Pg 5	changed “gas” to “gasoline”
Sec 2 / Pg 6	added text: “Installation of alternative fuel tanks and fuel systems shall comply with all applicable Federal Motor Vehicles Safety Standards (FMVSS), CFR’s, all applicable fire codes, and standards of the National Fire Protection Association.”
Sec 2 / Pg 25	added text: “A sign with black letters on clear or school bus yellow background, indicating the type of alternative fuel being used, may be placed on the side of the bus near the entrance door. No sign shall be more than 4-3/4 inches long or more than 3-1/4 inches high.”
Sec 2 / Pg 54	added “Pounds” to GVWR (gross vehicle weight rating)
Sec 2 / Pg 54	added “lbs” to weight
Sec 2 / Pg 54	added Type A minimum engine ratings (Chassis)
Sec 2 / Pg 54	added Type A minimum wheelbase
Sec 2 / Pg 54	added Type A minimum transmission (Chassis)
Sec 2 / Pg 55	deleted reference to pilot program and DOE approval (no longer needed)
Sec 2 / Pg 56	added word “conventional”
Sec 2 / Pg 56	deleted hydraulic brake option on 65 passenger buses
Sec 2 / Pg 56	added word “hydraulic” to table
Sec 2 / Pg 57	added word “conventional”
Sec 2 / Pg 57	added word “allison”
Sec 2 / Pg 57	added 2200 pts (C53 Chassis transmission rating change)
Sec 2 / Pg 57	added 2100 pts (C53 Chassis transmission rating change)
Sec 2 / Pg 58	added word “conventional”
Sec 2 / Pg 59	added word “transit”

Sec 2 / Pg 59	added word "allison"
Sec 2 / Pg 60	added word "transit"
Sec 2 / Pg 61	added word "transit"
Sec 2 / Pg 61	added word "allison"

Virginia School Bus Specifications

Section 1 Notice/General Information

These Specifications define certain, but not all, components required on a school bus chassis purchased by Virginia 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.

General Information

- 1. All public school buses (bodies and chassis) and school activity buses used to transport children to and from school or school-related events purchased, leased or contracted for by any public school board in Virginia, *on or after the effective* date of this document, as specified in 8VAC20-70-460, shall:
 - a. Meet or exceed the minimum requirements of these specifications;**
 - b. Meet all applicable Federal Motor Vehicle Safety Standards; and,**
 - c. Meet or exceed the current National School Transportation Specifications and Procedures (also referred to herein as the National Specifications) except when in conflict with the requirements herein. In such cases, the requirements specified in this document shall prevail.****
- 2. The requirements specified herein are the minimum requirements for school buses in Virginia. The date used to determine the applicability of these specifications shall be defined as the date the vendor receives the purchase order or signs a valid sales contract with the purchaser.**
- 3. Used school buses purchased or operated by a public school board in Virginia shall meet or exceed all federal and state requirements for public school buses that were in effect on the date the vehicle was manufactured.**
- 4. Any variation from the specifications, in the form of additional equipment or changes in style of equipment, without prior approval of the Department of Education (DOE), is prohibited.**

SCHOOL BUS DEFINITIONS

TYPE A:



Type “A” school bus is a conversion bus constructed utilizing a cutaway front-section vehicle with a left side driver’s door. This definition includes two classifications: Type A1, with Gross Vehicle Weight Rating (GVWR) 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.

TYPE B:



Type “B” school bus is constructed utilizing a body on a stripped chassis. 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.

TYPE C:



Type “C” (“Conventional”) school bus is a body installed upon a flat-back cowl chassis with a hood and fenders. This definition 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 means a bus with a body constructed using a stripped chassis. 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.

School Activity Bus



“Multifunction School Activity Bus (MFSAB)”(school activity bus) means a school bus whose purposes do not include transporting students to and from home or school bus stops, as defined in 49 CFR 571.3. This subcategory of school bus meets all FMVSS for school buses except the traffic control devices, identification, color, use of cruise control, and seating requirements (see item 80)

Section 2

Virginia School Bus Specifications

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 percent 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 resettable 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 percent 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~~ **gasoline**-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 tail pipe 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.
- F. **Installation of alternative fuel tanks and fuel systems shall comply with all applicable Federal Motor Vehicles Safety Standards (FMVSS), CFR’s, all applicable fire codes, and standards of the National Fire Protection Association.**

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 ¾ 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 the 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 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 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 allsteel 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 ½-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 percent 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; or
 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 3/4 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 percent 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.
 - a. **A sign with black letters on clear or school bus yellow background, indicating the type of alternative fuel being used, may be placed on the side of the bus near the entrance door. No sign shall be more than 4-3/4 inches long or more than 3-1/4 inches high.**
 - 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, 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.

6. No manufacturer or vendor logos, signs or other items not approved in the Virginia DOE Bus Minimum Specifications shall be displayed.

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 the *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 back-up 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 back-up 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-to-three 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-to-two 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 percent 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, 1,000 gram, 1,000 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 top step riser of the entrance step well. The letters shall be red in color with a white background and 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 percent 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 except as noted in Items 80.B through 80.F.
(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.

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. It is recommended that light colors be used for the body color to enhance visibility by other vehicles. Markings shall be contrasted against selected colors for ease of identification during periods of reduced visibility other than darkness. 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.

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 resettable 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 nonskid 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.

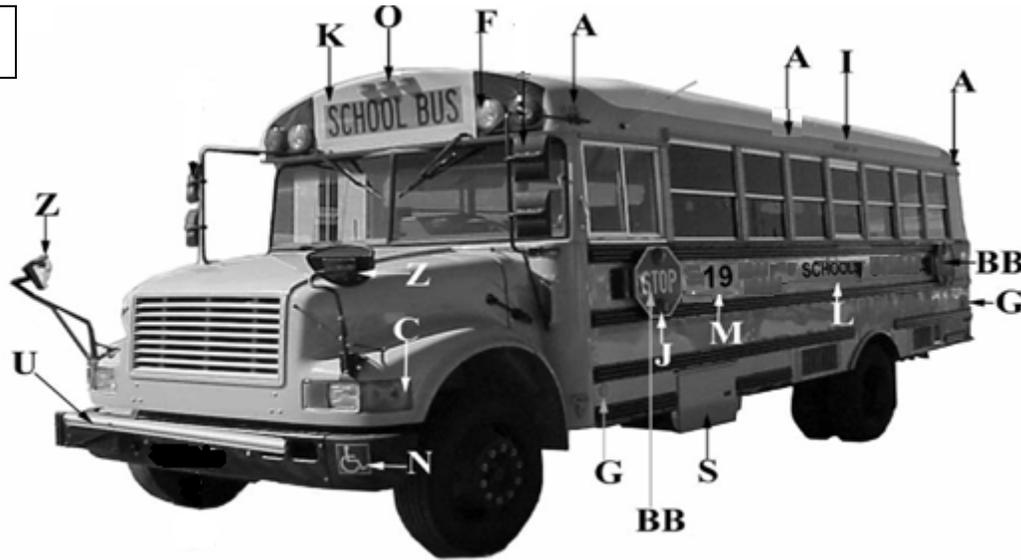
- A. A single door of a minimum 43 inches may be used.
- B. All doors shall open outwardly.
- C. All doors shall have positive fastening devices approved by Pupil Transportation Services to hold doors in the open position.
- D. All doors shall be weather sealed and on buses with double doors, they shall 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.

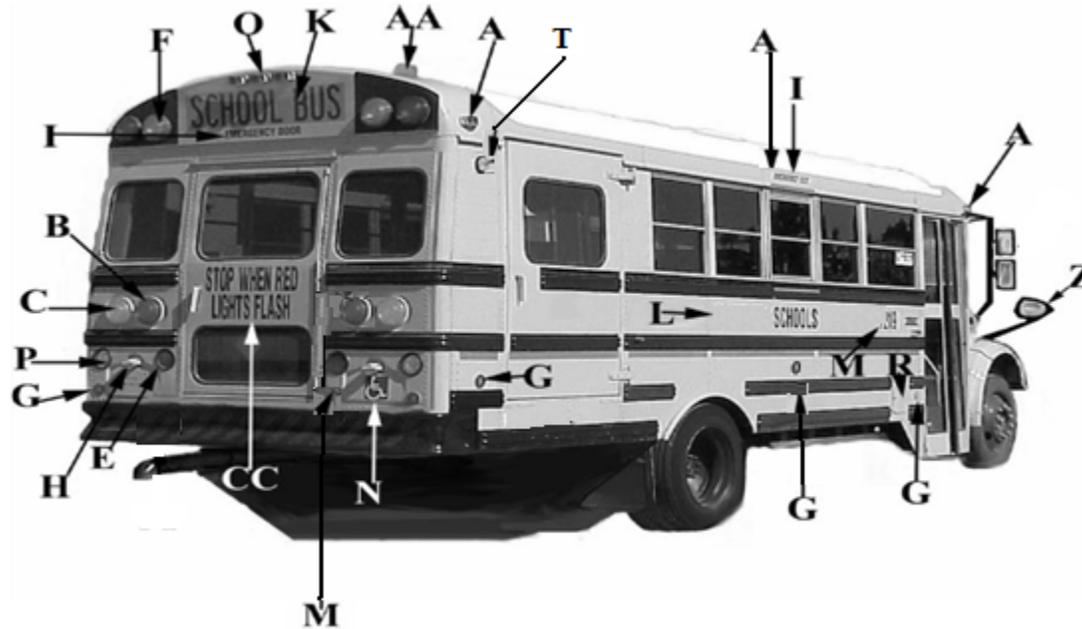
Diagram 1



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 retroflective 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 percent 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 minute 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.

**MINIMUM SPECIFICATIONS FOR SCHOOL BUS CHASSIS TO MEET
REQUIREMENTS OF VIRGINIA BOARD OF EDUCATION**

Minimum Chassis Specification Chart		
Type "A"		
Maximum Design (Passenger) Capacity	<u>16</u>	<u>24</u>
GVWR (Pounds) (Minimum)	10,000 lbs	10,000 lbs
Minimum engine size Electronic speed limiter set to maximum of 60 MPH	diesel engines	6.0 Liter
	gasoline engines	5.4 Liter
Wheelbase (inches)	139	139
Minimum fuel tank, gallons	30 gallons	30 gallons
Minimum	Tires*	See Item 28
	Rims	Disc 6.0 X 16
Minimum Transmission Specifications	4 speed automatic	4 speed automatic
Alternators amps	130	130
Frame	Per standards for severe duty	Per standards for severe duty
Steering	Power-meeting Virginia Specification	Power-meeting Virginia Specification
Front Bumper	Heavy duty painted black	Heavy duty painted black
Brakes	Power, with anti-lock brakes system	Power, with anti-lock brakes system
Suspension	Per standards for severe duty	Per standards for severe duty
Drive Shaft	Grease fittings on all shafts, guards on all shafts	Grease fittings on all shafts, guards on all shafts
Fuel Tank	30 gallons(see item 16)	30 gallons(see item 16)
Air Cleaner	Per engine manufacturer specifications w/restrictor indicator	Per engine manufacturer specifications w/restrictor indicator
Oil Filter	Replaceable, 1 quart	Replaceable, 1 quart
Battery	600 CCA	600 CCA
Horn	Dual Electric	Dual Electric
Lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights
Gauges	Speedometer, tachometer, fuel, oil pressure, coolant temp, and voltmeter	Speedometer, tachometer, fuel, oil pressure, coolant temp, and voltmeter

Minimum Chassis Specification Chart

Type "A"

Maximum Design (Passenger) Capacity	<u>16</u>	<u>24</u>
Color	Frame, wheels, bumper, rails and letterings-black; balance yellow	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 Chassis Specification Chart

Type "C" Conventional

Maximum Design (Passenger) Capacity	"C1" <u>30</u>	<u>35</u>	<u>53</u>	<u>65</u>	(Delete) 65 (Hydr.)	<u>71</u>	<u>77</u>
GVWR (lbs.)	17,500	21,000	25,000	27,500	27,500	29,000	31,000
Wheels	8-STUD DISC 19.5" X 6.75"	8-STUD DISC 22.5" X 6.75"	8-STUD DISC 22.5" X 6.75"	10-Stud Disc 22.5" X 7.75"	10-Stud Disc 22.5" X 7.75"	10-Stud Disc 22.5" X 7.75"	10-Stud Disc 22.5" X 8.25"
Tires	9R22.5 (1)	9R22.5 (1)	9R22.5 (1)	10R22.5(1)	10R22.5(1)	10R22.5(1)	11R22.5(1)
Frame	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
Steering	Power (2)	Power (2)	Power (2)	Power (2)	Power (2)	Power (2)	Power (2)
Front Bumper	3/16 Steel	3/16 Steel	3/16 Steel	3/16 Steel	3/16 Steel	3/16 Steel	3/16 Steel
Front Axle	7,000 lbs	6,000 lbs	8,000 lbs	10,000 lbs	10,000 lbs	10,000 lbs	10,000 lbs
Rear Axle	10,500 lbs	15,000 lbs	17,000 lbs	17,500 lbs	17,500 lbs	19,000 lbs	21,000 lbs
Service brake:							
Hydraulic	Hydraulic Disc w/abs	Hydraulic Disc w/abs(3)	Hydraulic Disc w/abs(3)		Hydraulic Disc w/abs		
Air		13.2 CMF Compressor/Air dryer(3)	13.2 CMF Compressor/Air dryer(3)	13.2 CMF Compressor/Air dryer		13.2 CMF Compressor/Air dryer	13.2 CMF Compressor/Air dryer

(1) Load range meeting TRA standards for required gawr.

(2) Power – Meeting Virginia specification

(3) Hydraulic (w/ Allison 2200 pts only) Full Air (5 speed direct or Allison 2100 pts only)

Minimum Chassis Specification Chart

Type "C" Conventional

Maximum Design (Passenger) Capacity	<u>"C1"</u> <u>30</u>	<u>35</u>	<u>53</u>	<u>65</u>	(Delete) 65 (Hydr.)	<u>71</u>	<u>77</u>
Suspension	Frnt. Springs 7,000 lbs. Ea @ grd. Rear Springs 10,500 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 3,000 lbs. Ea @ grd. Rear Springs 7,500 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 7,000 lbs. Ea @ grd. Rear Springs 10,500 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 5,000 lbs. Ea @ grd. Rear Springs 8,750 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 5,000 lbs. Ea @ grd. Rear Springs 8,750 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 5,000 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frnt. and rear shock absorbers	Frnt. Springs 5,000 lbs. Ea @ grd. Rear Springs 10,500 lbs. Ea @ grd Frnt. and rear shock absorbers
Engine	175 H.P.*	175 H.P.*	175 H.P.*	175 H.P.*	175 H.P.*	190 H.P.*	210 H.P.*
Transmission (Allison)	5 Speed Direct, 1,000 PTS	5 Speed Direct, 2,200 or 2,100 pts**	5 Speed Direct, 2,100 or 2,200 pts**	5 Speed Direct or 2,500 pts	2,200pts	Allison 2,500 PTS	Allison 2,500 PTS
Drive Shaft	Guards on all shafts	Guards on all shafts	Guards on all shafts	Guards on all shafts	Guards on all shafts	Guards on all shafts	Guards on all shafts
Fuel tank (min size)	30	30	30	30	30	30	30
Air cleaner	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge
Alternator	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits
Horn	Per FMVSS	Per FMVSS	Per FMVSS	Per FMVSS	Per FMVSS	Per FMVSS	Per FMVSS

* (ENGINE) Electronic speed limiter set to maximum of 60 mph ** See Brake

Minimum Chassis Specification Chart

Type "C" Conventional

Maximum Design (Passenger) Capacity	"C1" 30	35	53	65	(Delete) 65-(Hydr.)	71	77
Lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights				
Gauges	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure as required	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure as required	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter,	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure
Color	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow
Oil Filter	1 Qt. Per manufacturer	1 Qt. per manufacturer	1 Qt. Per manufacturer	1 Qt. Per manufacturer			
Battery	750 cca	750 cca	750 cca	750 cca	750 cca	750 cca	750 cca

Minimum Chassis Specification Chart

TYPE "D" Front Engine Transit

Maximum Design (Passenger) Capacity	<u>42 & 53</u>	<u>65</u>	<u>71</u>	<u>77</u>	<u>83</u>
GVWR (lbs.)	27,800	29,000	29,000	32,000	32,000
Wheels	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 8.25"	10-Stud Disc 22.5" X 8.25"
Tires	11R22.5(1)	11R22.5(1)	11R22.5(1)	11R22.5(1)	11R22.5(1)
Frame	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
Steering	Power (2)				
Front Bumper	3/16 Steel				
Front Axle	10,800 lbs	12,000 lbs	12,000 lbs	13,000 lbs	13,000 lbs
Rear Axle	17,000 lbs	17,000 lbs	17,000 lbs	19,000 lbs	19,000 lbs
Service brakes:					
Air	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear
Suspension	Frt. Springs 5,400 lbs. Ea @ grd. Rear Springs 8,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,000 lbs. Ea @ grd. Rear Springs 8,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,500 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,500 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,500 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frt. and rear shock absorbers
Engine	190 H.P*	190 H.P*	190*	210*	210*
Transmission (Allison)	Allison 2,500 PTS	Allison 2,500 PTS	Allison 2,500 PTS	Allison 2,500 PTS	Allison 3,000 PTS
Drive Shaft	Guards on all shafts				
Fuel tank (min size)	30	30	30	30	30
Air cleaner	Dry element type w/restriction gauge				
Alternator	160 amp 4 ga. charging and ground circuits				
Horn	Per FMVSS				

(1) Load range meeting TRA standards for required gawr. (2) Power – Meeting Virginia specification

* (ENGINE) Electronic speed limiter set to maximum of 60 mph

Minimum Chassis Specification Chart

TYPE "D" Front Engine Transit

Maximum Design (Passenger) Capacity	<u>42 & 53</u>	<u>65</u>	<u>71</u>	<u>77</u>	<u>83</u>
Lights	Per FMVSS and daytime running lights				
Gauges	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure
Color	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow
Oil Filter	1 Qt. Per manufacturer				
Battery	750 cca				

Minimum Chassis Specification Chart

TYPE "D" Rear Engine Transit

Maximum Design (Passenger) Capacity	<u>66</u>	<u>72</u>	<u>78</u>	<u>84</u>
GVWR (lbs.)	29,800	29,800	33,000	33,000
Wheels	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 7.5"	10-Stud Disc 22.5" X 7.5"
Tires	11R22.5(1)	11R22.5(1)	11R22.5(1)	11R22.5(1)
Frame	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS	ONE PIECE SIDE MEMBER – FRONT TOW HOOKS
Steering	Power (2)	Power (2)	Power (2)	Power (2)
Front Bumper	3/16 Steel	3/16 Steel	3/16 Steel	3/16 Steel
Front Axle	10,800 lbs	10,800 lbs	12,000 lbs	12,000 lbs
Rear Axle	19,000 lbs	19,000 lbs	21,000 lbs	21,000 lbs
Service brakes:				
Air	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear	13.2 CMF Comp/Air dryer 16.5" x 5" Frt 16.5 x 7" Rear
Suspension	Frt. Springs 5,400 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 5,400 lbs. Ea @ grd. Rear Springs 9,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,000 lbs. Ea @ grd. Rear Springs 10,500 lbs. Ea @ grd Frt. and rear shock absorbers	Frt. Springs 6,000 lbs. Ea @ grd. Rear Springs 10,500 lbs. Ea @ grd Frt. and rear shock absorbers
Engine	190 H.P*	190 H.P*	210 H.P*	210 H.P*
Transmission (Allison)	Allison 2,500 PTS	Allison 2,500 PTS	Allison 3,000 PTS	Allison 3,000 PTS
Drive Shaft	Guards on all shafts	Guards on all shafts	Guards on all shafts	Guards on all shafts
Fuel tank (min size)	30	30	30	30
Air cleaner	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge	Dry element type w/restriction gauge
Alternator	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits	160 amp 4 ga. charging and ground circuits
Horn	Per FMVSS	Per FMVSS	Per FMVSS	Per FMVSS
Lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights	Per FMVSS and daytime running lights

(1) Load range meeting TRA standards for required gawr. (2) Power – Meeting Virginia specification

* (ENGINE) Electronic speed limiter set to maximum of 60 mph

Minimum Chassis Specification Chart

TYPE "D" Rear Engine Transit

Maximum Design (Passenger) Capacity	66	72	78	84
Gauges	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure	Speedometer, tachometer, fuel, oil pressure, coolant temp & voltmeter, air pressure
Color	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow	Frame, wheels, bumper, rails and lettering-black. Back of mirrors – non-gloss black. The balance yellow
Oil Filter	1 Qt. Per manufacturer			
Battery	750 cca	750 cca	750 cca	750 cca