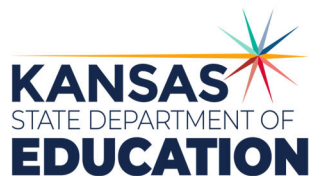


# Kansas School Bus

## Regulations, Standards, Statutes & Information



*Kansas leads the world in the success of each student.*

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3201.

This manual was prepared by the Kansas State Department of Education School Bus Safety Unit. The goal is to provide a document to assist Kansas school transportation personnel with:

- Kansas Administrative Regulations (KAR) which pertain to school transportation
- Current National School Transportation Specifications as adopted by the National Congress on School Transportation.
- Kansas Statute links
- Other information

While we strive to provide accurate information, there may be inadvertent inaccuracies and typographical errors in this document. More information can be found on the KSDE School Bus Safety Unit website.

If you have any questions please contact:

Kansas State Department of Education  
School Bus Safety Unit

## MAIN INDEX

Kansas Administrative Regulations Index	Page 3
Kansas Statutes Annotated (KSA)	Page 17
Kansas School Bus and Student Transportation Mandates	Page 18
2015 National School Transportation Specifications	
Bus Body & Chassis Specifications	Page 22
Specially Equipped School Bus Specifications	Page 62
Federal Motor Vehicle Safety Standards (FMVSS)	Page 72
Basic Drug & Alcohol Information for School Districts	Page 73
File Retention Guide	Page 77
Bus Driver Hiring Informational Guide	Page 78
12-15 Passenger Rated Vans Prohibited	Page 80
14 Passenger Rated – NON CDL School Buses	Page 82
Stop Arm Law	Page 83
Kansas School Bus, Activity Bus and School Passenger Vehicle Inspections	Page 84
Vehicle Wraps on Activity Bus and School Passenger Vehicle Windows	Page 85

Note: Kansas adopted 2015 National School Transportation Specifications for Bus Body & Chassis and Specially Equipped School Bus Specifications effective March 1, 2017. For buses manufactured prior to March 1, 2017, see the appropriate edition of the National School Transportation Specifications & Procedures. Digital copies of these publications are available on our website.

### Cover Photo

The KSDE School Bus Safety Unit wishes to thank Chase County USD 284 and Scott Gallmeister for their assistance with our cover photo. The Chase County Courthouse in Cottonwood Falls, Kansas, was built in 1873 and is constructed of walnut and limestone, which was quarried on the town site. It is the oldest Kansas Courthouse still in use.

**INDEX**

**Kansas State Department of Education**  
**Kansas Administrative Regulations for School Transportation**

- 91-38-1 Definitions
- 91-38-2 General Limitations and Requirements
- 91-38-3 School Transportation Supervisor: Duties and Responsibilities
- 91-38-4 Compliance with Chassis and Body Construction Standards
- 91-38-5 Annual Inspection of School Vehicles
- 91-38-6 School Transportation Driver Qualifications
- 91-38-7 Driver's Duties and Responsibilities
- 91-38-8 Loading and Unloading Procedure
- 91-38-9 Emergency Procedures
- 91-38-10 Use of Urban Mass Transportation Buses

**Kansas Department of Transportation**  
**Railroad Grade Crossings**

- 36-26-1 Railroad grade crossings; stopping required

**REGULATIONS**

**91-38-1. Definitions.** (a) "Activity bus" means any bus utilized by a governing body only to transport students to and from school activities as authorized by K.S.A. 72-8301 (c)(3), and amendments thereto. An activity bus may be a color other than school bus yellow.

**Note:** Kansas Revisor of Statutes transferred KSA 72-8301 to KSA 72-6486

(b) "Bus" means any motor vehicle that is designed for transporting more than 10 passengers in addition to the driver.

(c) "Driver-trainer" means any person who is assigned by a transportation supervisor to provide instruction and training to other school transportation providers, including knowledge of vehicles used to provide student transportation, safe driving practices, emergency procedures, and passenger control. The driver-trainer shall maintain current licensure to operate the largest vehicle about which the driver-trainer is to provide instruction and shall have experience as a school bus driver.

(d) "Governing body" means the local board of education or other entity having authority over a school district.

(e) "Multipurpose passenger vehicle" means a motor vehicle, as defined in K.S.A. 8-126 and amendments thereto, that is designed to transport 10 or fewer persons, in addition to the driver, and that is constructed on a truck chassis.

(f) "School bus" means school bus as defined in K.S.A. 72-8301, and amendments thereto. A school bus may be owned by a school district, a private school, or a private company. The term shall include any van or other vehicle rated by the manufacturer, or having a door label, as a bus.

**Note: Kansas Revisor of Statutes transferred KSA 72-8301 to KSA 72-6486**

(g) "School bus driver" means any person employed by a school district or school bus contractor to drive a school bus or activity bus.

(h) "School district" means any unified school district or private school.

(i) "School passenger vehicle" means any passenger car or multipurpose passenger vehicle that is owned or leased by a school district or private individual and is used regularly to provide student transportation on behalf of a school district.

(j) "School passenger vehicle driver" means any person employed by a school district primarily to provide transportation for students in a school passenger vehicle.

(k) "School transportation provider" means either a school bus driver or a school passenger vehicle driver.

(l) "School vehicle" means any activity bus, school bus, or school passenger vehicle.

(m) "Short-term leased vehicle" means any school vehicle that is leased by a school district for a period of 30 or fewer days.

(n) "Substitute driver" means any person who is not assigned to a regular route but is employed to serve as a school transportation provider when necessary due to driver absences or emergencies.

(o) "Transportation supervisor" means a person designated by a governing body to be responsible for transportation activities within a school district. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

#### **BACK TO KAR INDEX**

**91-38-2. General limitations and requirements.** (a) No governing body shall have a school bus in service after July 1, 1992, unless the school bus was manufactured after April 1, 1977 and either is no more than 25 years old or has been modified to meet current standards. Each school bus shall meet the standards specified by law and this article of the department's regulations.

(b) The owner's name shall be displayed on each side of any school bus.

(c) Activity buses shall not be utilized to provide student transportation from any student's home to school or from school to any student's home.

(d) Each school bus, activity bus, and school passenger vehicle shall be equipped with a two-way communication system.

(e)(1) Each bus shall contain the following emergency supplies:

(A) At least one 2A-10BC fire extinguisher;

#### **BACK TO KAR INDEX**



(B) at least one readily identifiable first-aid kit in a removable, waterproof, and dustproof container;

(C) at least one readily identifiable body fluid clean-up kit in a removable, waterproof, and dustproof container;

(D) at least three reflectorized triangle warning devices, securely stored but in an accessible location; and

(E) at least one emergency seat belt cutter.

(2) The first-aid kit, body fluid clean-up kit, fire extinguisher, and seat belt cutter shall be mounted in full view of, and readily accessible to, the driver.

(f) Each governing body shall ensure that occupant restraint systems are provided for, and utilized by, all occupants of school passenger vehicles. When providing transportation for infants and preschool children in school passenger vehicles, age- and size-appropriate child safety restraining systems shall be utilized, pursuant to K.S.A. 8-1344, and amendments thereto. (Authorized by K.S.A. 8-2009; implementing K.S.A. 8-2009, KSA 2015 Supp. 8-2009a; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

### [BACK TO KAR INDEX](#)

**91-38-3. School transportation supervisor; duties and responsibilities.** (a) Appointment and general responsibilities.

(1) Each governing body shall designate an employee to be the transportation supervisor.

(2)(A) The transportation supervisor shall be responsible for supervision and maintenance of the school district's transportation system.

(B) The transportation supervisor shall act as liaison between the school district and any contracted bus transportation service.

(b) School transportation routes and stops.

(1) The transportation supervisor shall be responsible for establishing all regular transportation routes and stops for the loading and unloading of students along those routes. The supervisor shall keep a current map on file for each regular transportation route, with all stops noted and a current map of the school district showing each attendance center.

(2) The transportation supervisor shall not establish stops on any interstate highway, state toll road, or other limited-access highway.

(3) The transportation supervisor shall give special consideration to road conditions and safety concerns when planning the regular transportation routes. If a safety hazard is encountered, the appropriate authorities shall be contacted about eliminating or correcting the hazard, if possible.

(4) Each driver shall report to the transportation supervisor any condition encountered by the driver on a transportation route that appears to pose a safety hazard.

### [BACK TO KAR INDEX](#)

(5) If visibility is less than 500 feet when approaching an established school bus stop from any direction, the transportation supervisor shall contact state, county, or township road authorities and request that warning signs be posted for the school bus stop. Whenever practicable, stops shall be established only at points where visibility is at least 500 feet for all motorists.

(c) Driver training meetings.

(1) Each transportation supervisor shall conduct at least 10 safety meetings per year for all school transportation providers employed by the school district.

(2) Attendance at each meeting shall be documented with a sign-in sheet or similar document. The record of attendance and the agenda shall be retained by the supervisor for at least two years.

(3) Safety meeting topics shall include school transportation safety concerns from drivers regarding route safety, changes in laws or regulations, and other safety issues as determined appropriate by the transportation supervisor.

(4) Safety meetings may be electronically recorded so that drivers who are unable to attend a particular meeting can view the program at another time.

(5) Each school transportation provider shall attend at least 10 safety meetings per year. Newly hired drivers shall be required to attend only those meetings held following their employment.

(d) Records retention.

(1) The transportation supervisor shall be responsible for maintenance and repair records for all school buses, activity buses, and school passenger vehicles used for student transportation, except short-term leased vehicles, that are either owned or leased and are operated by the school district. These records shall include information on scheduled maintenance, lubrication records, repair orders, and other maintenance.

(2) The maintenance record for each vehicle shall be kept as long as the school owns or leases the vehicle, and for at least two years following disposition of the vehicle.

(3) Maintenance records shall be available for inspection by the Kansas highway patrol, other law enforcement agencies, and Kansas state department of education officials.

(e) Contracts for bus transportation services. Each school district that contracts for bus transportation services shall ensure that each contract for those services includes a provision requiring the contractor to meet the requirements of subsections (c) and (d).

(f) Students with special needs. Each school district shall, before transportation, notify the transportation supervisor of any student with special health care concerns, special needs for transportation, or an individualized education program requiring transportation. The supervisor shall ensure that all drivers, substitute drivers, and attendants are informed of these needs and receive any training that is necessary to safely transport the student or to accommodate the student's special needs. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

**91-38-4. Compliance with chassis and body construction standards.** (a) Except as otherwise provided in subsection (c), a governing body shall not allow students to be transported on any school bus acquired or leased after the effective date of this regulation until the governing body has on file a verified statement, as prescribed by the state board, from the seller or lessor of the school bus attesting that the school bus meets the following requirements:

(1) The school bus chassis and body construction standards promulgated by the United States department of transportation that apply to the particular bus; and

(2) the bus chassis and body construction standards, including standards for specially equipped school buses, if applicable, prescribed in the national school transportation specifications adopted by the national congress on school transportation.

(b) A governing body shall not alter, change, or otherwise modify any school bus used to transport students in any manner that results in nullification of the statement required in subsection (a) or that results in the failure of the school bus to comply with standards applicable to it under K.S.A. 8-2009a, and amendments thereto.

(c) If a governing body is acquiring a school bus from another governing body, the governing body acquiring the school bus shall obtain the following statements from the governing body that is disposing of the school bus:

(1) The verified statement obtained by the governing body under subsection (a); and

(2) a verified statement from the governing body that is disposing of the school bus attesting to the fact that the governing body has not altered, changed, or otherwise modified the school bus in any manner that results in nullification of the statement required in subsection

(a) or that results in the failure of the school bus to comply with the standards applicable to it under K.S.A. 8-2009a, and amendments thereto. (Authorized by K.S.A. 8-2009; implementing K.S.A. 8-2009, KSA 2015 Supp. 8-2009a; effective July 1, 2000; amended July 7, 2017.)

### [BACK TO KAR INDEX](#)

**91-38-5. Annual inspection of school vehicles.** (a)(1) Each governing body that either owns or leases and that operates any school bus or activity bus shall have each of those buses inspected annually in accordance with this regulation.

(2) Each person or entity that contracts with any governing body to provide bus transportation services to students shall have each school bus or activity bus used to transport students inspected annually in accordance with this regulation.

(3) Except for new buses, which shall be inspected upon delivery and before being used to transport students, the inspection process shall be conducted between June 1 and September 30. No school bus or activity bus shall be used to transport students until the inspection process has been completed and the bus is in proper working order.

### [BACK TO KAR INDEX](#)

(b)(1) Each governing body and each bus transportation contractor shall have each school bus and each activity bus that is operated by the governing body or the contractor inspected by a mechanic who is knowledgeable about the mechanical systems of school buses. In addition, each governing body shall have each school passenger vehicle that is used to transport students inspected annually by a mechanic. The mechanic shall inspect each school vehicle to determine whether the mechanical system is in proper working order.

(2) Each mechanic shall indicate the results of the inspection on the form provided by the state department of education and shall return the form to the governing body or bus transportation contractor.

(c)(1) After the inspection prescribed in subsection (b) is completed, each school vehicle shall be inspected by the Kansas highway patrol to determine whether the school vehicle is equipped with the appropriate safety devices and those devices are in proper working order.

(2) The results of the inspection shall be indicated by the highway patrol officer on the form provided by the state department of education. Following completion of this form, it shall be returned to the governing body or bus transportation contractor and shall become a maintenance record.

(d) Upon successful completion of the inspection process specified in subsections (b) and (c), a school vehicle inspection sticker issued by the Kansas highway patrol shall be placed on the school vehicle's windshield in a location that will not impair the driver's vision.

(e)(1) If any school vehicle fails either the mechanical or safety inspection specified in this regulation, that school vehicle shall not be used for student transportation until all defects have been corrected and the school vehicle has been approved.

(2) If repairs or other corrections are required for a school vehicle to pass the inspection and these repairs or corrections are completed within 10 days after the initial inspection, then only the defective items shall be reexamined. If the repairs or corrections are not made within 10 days following the initial inspection, the school vehicle shall be completely reinspected.

(f) At any time, spot inspections of any school vehicle used for student transportation may be conducted by the Kansas highway patrol.

(g) Each school bus, activity bus, and school passenger vehicle that is purchased at any time following the required annual inspection for school vehicles shall pass the inspections required by this regulation before being used to transport students. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

### **BACK TO KAR INDEX**

**91-38-6. School transportation driver qualifications.** (a) Driver's licensing and age requirements. Each person employed by a school district or by a school bus contractor who, at any time, will provide student transportation shall be licensed pursuant to K.S.A. 8-234b and amendments thereto, or the appropriate licensing statutes of the person's state of residence. Each person also shall meet the following requirements:



(1) Each driver of a school bus or activity bus with a gross weight of over 26,000 pounds shall maintain a commercial class A or B driver's license, with passenger and school bus endorsements.

(2) Each driver of a school bus or activity bus that has a gross weight of 26,000 pounds or less and is designed for transporting 16 passengers or more shall maintain a commercial class A, B, or C driver's license, with passenger and school bus endorsements.

(3) Each driver of a school passenger vehicle or a school bus or activity bus that has a gross weight of 26,000 pounds or less and is designed to transport fewer than 16 passengers shall maintain an appropriate noncommercial operator's license.

(4) Each driver's license shall be valid within the driver's state of residence.

(5) Each driver of an activity bus shall be 21 years of age or older.

(b) Criminal and driving records.

(1) Each prospective school transportation provider or other school employee who may transport students shall be required to sign a statement indicating whether that individual has been convicted in any state or federal court of any crime involving a child. A person who has been convicted of such a crime shall not be employed, or retained as an employee to provide student transportation.

(2) Each prospective driver shall be required to sign a statement indicating whether, within the past 10 years, that individual has been convicted in any state of any felony or any major traffic violations specified in subsection (c).

(3) For purposes of this regulation, a conviction shall mean entering a plea of guilty or nolo contendere, a finding of guilty by a court or jury, or forfeiture of bond.

(4) Each prospective school transportation provider shall give written authorization to the prospective employer to obtain the applicant's driving record through a local law enforcement agency or the Kansas department of revenue, division of vehicles, pursuant to K.S.A. 74-2012 and amendments thereto. The authorization also shall allow the prospective employer to obtain the applicant's driving record in states other than Kansas through a local law enforcement agency or the appropriate agency of the other state.

(c) Disqualification from employment.

(1) Except as otherwise provided in paragraph (c)(2), a governing body shall not employ or retain to transport students any person who discloses or whose driving record indicates that, within the past 10 years, the person has been convicted of any of the following major traffic violations:

(A) Hit-and-run driving;

(B) driving while under the influence of alcohol or drugs;

(C) vehicular homicide;

(D) reckless driving; or

(E) any offense for which the driver's license was suspended or revoked pursuant to K.S.A. 8-254 and 8-255, and amendments thereto.

(2) A governing body may waive the disqualification for employment by a unanimous vote of the full membership of the governing body.

(d) Driver experience and training requirements.

(1) Each driver who operates a school vehicle to transport students shall have at least one year's experience in operating a motor vehicle.

(2)(A) Each school bus driver shall be provided with at least 12 hours of bus driver training. The first six hours of training shall be completed without student passengers, but the remaining hours may be completed with student passengers, if the driver-trainer is on the bus. All driver training shall be supervised by the assigned driver-trainer.

(B) Except as otherwise provided in paragraph (d)(2)(C), each school transportation provider shall complete a first aid and cardiopulmonary resuscitation (CPR) course, approved by the state department of education, within 30 days after the first day the driver is allowed to transport students. Each driver completing any training session shall obtain a wallet card or other certificate attesting to that individual's completion of the training program and shall maintain this certification.

(C) A school transportation provider who is certified as an emergency medical service provider shall not be required to complete first aid and CPR training, if the emergency medical certification is maintained in valid status.

(e)(1) Each school transportation provider shall successfully complete a vehicle accident prevention course approved by the state department of education, within 30 days after the first day the driver transports students. The driver shall obtain a completion certificate or wallet card as evidence that the course requirements have been met.

(2) After completion of the initial accident prevention course, each driver shall be required to maintain certification by completion of an accident prevention course at least every three years

(3) The transportation supervisor shall maintain documentation of driver training for school transportation providers for the duration of the driver's employment, and at least two years thereafter.

(f) Substitute and emergency school transportation providers.

(1) Substitute school transportation providers shall meet the requirements in this regulation, but these individuals may be allowed up to 30 days following employment to complete the first aid, CPR, and accident prevention course training requirements.

(2) Any person who holds a valid commercial driver's license with passenger and school bus endorsements and a current medical certificate may operate a school bus in an emergency situation. For purposes of this paragraph, an "emergency situation" shall mean a situation in which no qualified driver or substitute driver is available. A specific driver shall not drive as an emergency driver for more than five days during a school year.

(g) Physical examination and health requirements.

(1) The physical qualification requirements for school transportation providers in Kansas shall be those in 49 C.F.R. 391.41, as in effect on January 14, 2014, which is hereby adopted by reference. The medical examiner's report form and the medical examiner's certificate that are approved by the state department of education shall be used to document the results of each examination.

(2) The physical examination shall be certified by a doctor of medicine, doctor of osteopathy, doctor of chiropractic, physician assistant, nurse practitioner, or any medical professional on the federal motor carrier safety administration's national registry of certified medical examiners, according to the following schedule:

(A) Before beginning employment as a school transportation provider;

(B) at least every two years after the date of the initial physical examination; and

(C) at any time requested by the driver's employer, the school transportation supervisor, or the state department of education.

(3) A certified medical examiner's certificate required under this subsection shall not constitute the certification of health required by K.S.A. 72-5213, and amendments thereto.

**Note: Kansas Revisor of Statutes transferred KSA 72-5213 to KSA 72-6266**

(4) Each governing body shall keep on file a current medical examiner's certificate for each school transportation provider. If a provider leaves employment for any reason, the person's last medical examiner's certificate shall be kept for two years after the person leaves.

(h) Waiver of physical requirements.

(1)(A) Any person failing to meet the requirements of subsection (g) may be permitted to be a school transportation provider for a particular school district, if a waiver is granted by the governing board of that school district under this sub-section. Each waiver shall meet the following requirements:

(i) The person seeking the waiver, the transportation supervisor for the school district, and the contract manager, if applicable, shall submit a joint application for a waiver to the local board of education.

(ii) Each application shall be accompanied by reports from two of the following, indicating their opinions regarding the person's ability to safely operate a school bus: doctor of medicine, doctor of osteopathy, doctor of chiropractic, physician assistant, or nurse practitioner.

(iii) The application shall contain a description of the type and size of the vehicle to be driven and any special equipment required to accommodate the driver to safely operate the vehicle, the general area and type of roads to be traveled, distances and time period contemplated, and the experience of the person in driving vehicles of the type to be driven.

(B) An application for a waiver shall be granted only by unanimous approval of the governing board.

(A) A waiver as described in paragraph (h)(1) shall not be granted for a period longer than two years, but may be renewed by following the procedures in paragraph (h)(1).

(B) While on duty, the driver shall keep in the driver's possession the original document granting the waiver or a legible copy of this document.

(C) Each governing body shall retain the original document granting the waiver or a legible copy of the waiver in the driver's personnel file for as long as the driver is employed and for at least two years following termination of the driver's employment.

(D) A waiver may be revoked, for cause, by the governing body. Before revocation, the governing body shall perform the following:

- (i) Suspend the driver from service;
- (ii) provide notice of the proposed revocation to the driver, including the reason or reasons for the proposed revocation; and
- (iii) allow the driver a reasonable opportunity to show cause, if any, why the revocation should not occur.

(i) Alcohol and drug testing requirements. Any governing body may develop a policy to include all drivers of any school motor vehicles in the alcohol and drug testing program required for drivers not holding commercial driver's licenses. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

### **BACK TO KAR INDEX**

**91-38-7. Driver's duties and responsibilities.** (a) Each school transportation provider shall inspect a school vehicle before its use to ascertain that the vehicle is in a safe condition and equipped as required by law, and that all required equipment is in working order. The school transportation provider shall document each inspection.

(b) If any defect is discovered, students shall not be transported in the vehicle until the defect is corrected.

(c) Documentation of the inspections of each school vehicle shall be kept on file for at least one year following the vehicle inspection.

(d) A school transportation provider shall not drive a school vehicle for more than 10 consecutive hours or for more than a total of 10 hours in any 15-hour period.

(e) Each school transportation provider shall ensure that all doors are closed before the vehicle is put into motion and remain closed while the vehicle is moving.

(f) Each school transportation provider shall ensure that openings for the service door, emergency exits, and aisles are kept clear of any obstructions.

(g) Each school transportation provider shall utilize the driver's safety belt at all times while the vehicle is in motion.

(h) If the school transportation provider leaves the driver's seat, the parking brake shall be set, the motor turned off, and the keys removed. However, drivers of specially equipped buses may leave the motor running to operate a power lift after setting the parking brake.

(i) If a school vehicle is refueled during any trip when passengers are being transported, the school transportation provider shall unload all passengers from the vehicle and turn off the vehicle's motor before beginning refueling procedures. Fuel shall not be transported in any manner, except in the vehicle's fuel tank.

### **BACK TO KAR INDEX**

(j) Following the completion of any trip, each school transportation provider shall perform a walk-through inspection of the school bus or activity bus, or a visual check of the school passenger vehicle, that the provider was driving, to ensure that all passengers have disembarked.

(k) A driver of a school bus or activity bus shall not tow any trailer or other vehicle with the bus, while any passenger is on the bus. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended March 28, 2003; amended July 7, 2017.)

#### **BACK TO KAR INDEX**

#### **91-38-8. Loading and unloading procedures.** (a) On routes.

(1) Each school bus driver shall activate the alternately flashing warning lights as required by K.S.A. 8-1556 and amendments thereto, at any time that the loading or unloading of students occurs on the traveled portion of any roadway.

(2) Each governing body shall adopt procedures for the loading and unloading of students, consistent with the requirements of this article of the department's regulations. The procedures shall include the following:

(A) Each school bus driver shall load and unload students off the roadway whenever adequate space is provided, unless parking the bus off the roadway would threaten the safety or stability of the bus or safety of the students.

(B) Each school bus driver shall direct students who cross the roadway when loading or unloading from a school bus to cross only in front of the bus. The driver shall ensure that all traffic has stopped and shall instruct students to wait for a signal from the driver before crossing the roadway.

(C) Students shall not be required to cross any divided highway, as defined in K.S.A. 8-1414 and amendments thereto, or any roadway consisting of more than one lane of traffic traveling in the same direction excluding turn lanes in order to board the bus or to reach the students' destination upon unloading from the bus.

(D) When the loading or unloading of students takes place on a roadway, the bus shall stop in the far right-hand lane of the roadway.

(E) Each driver shall ensure that all students who have unloaded from the bus have moved a safe distance away from the bus before the driver moves the bus.

(b) At school.

(1) Whenever possible, each governing body shall provide bus parking so that the loading or unloading of students is conducted in an area away from vehicular traffic and off the roadway.

(2) Before each school's dismissal time, and where adequate space is available, the bus drivers shall park the buses in single file.

#### **BACK TO KAR INDEX**



(3) If the loading or unloading of students is conducted on the traveled portion of a roadway, each bus driver shall park the bus on the side of the roadway nearest to the school, with the entry door opening away from the traveled portion of the roadway. Buses shall be parked adjacent to curbing, if present. If there is no curbing, the buses shall be parked as far to the right of the roadway as possible without threatening the stability of the bus.

(4) Each board shall ensure that there is adult supervision during loading and unloading procedures at each school building, except at buildings utilized exclusively for senior high school students.

(c) On activity trips.

(1) Whenever possible, each bus driver shall park the bus so that the loading or unloading of students takes place in an area away from other vehicular traffic.

(2) The transportation supervisor shall designate, in advance, stops for the loading and unloading of buses along each activity trip route.

(d) In school passenger vehicles. Each driver of a school passenger vehicle shall park the vehicle in a location so that students are loaded or unloaded in an area off the roadway. (Authorized by and implementing K.S.A. 8-2009; effective July 1, 2000; amended July 7, 2017.)

### **BACK TO KAR INDEX**

**91-38-9. Emergency procedures.** (a) Each governing body shall adopt procedures to be followed by school transportation providers if confronted with an emergency situation when on the road.

(b) Each governing body shall ensure that students who are regularly transported to and from school in a school bus receive instruction, at least once each semester, about practices and procedures to follow if an emergency occurs while being transported.

(c) Each governing body shall ensure that emergency evacuation drills are conducted at least once each semester. Each emergency evacuation drill shall be supervised by the transportation supervisor or the supervisor's designee.

(d) The transportation supervisor shall prepare documentation of each emergency evacuation drill, including the date of the drill, number of student participants, and the names of the supervising personnel. This documentation shall be kept on file for at least two years from the date of the drill.

(e) Before each activity trip, the driver shall provide an explanation of the location and operation of the emergency exits of the bus. This regulation shall be effective on and after July 1, 2000. (Authorized by and implementing K.S.A. 1998 Supp. 8-2009; effective July 1, 2000.)

**91-38-10. Use of urban mass transportation buses.** (a) A governing body may contract with the operator of a mass transportation system to provide school transportation for its students. Any contract for this transportation shall include the information specified below in subsection (b).

### **BACK TO KAR INDEX**

(b) The operator shall keep and provide the following information to the governing body, upon request:

(1) Documentation of vehicle lubrication, maintenance, and repair as set forth in K.A.R. 91-38-3(d);

(2) documentation that any vehicle used to transport students contains the emergency equipment required in K.A.R. 91-38-2(e); and

(3) documentation that each driver used to provide student transportation meets the qualification set forth in K.A.R. 91-38-6. This regulation shall be effective on and after July 1, 2000. (Authorized by and implementing K.S.A. 1998 Supp. 8-2009; effective July 1, 2000.)

### [BACK TO KAR INDEX](#)

**36-26-1. Railroad Grade Crossings Stopping required** (a) K.S.A. 8-1553 requires that the drivers of certain types of motor vehicles, before crossing at grade any track or tracks of a railroad, shall stop such vehicle within 50 feet but not less than 15 feet from the nearest rail of such railroad and while so stopped shall listen and look in both directions along such track for any approaching train, and for signals including active flashing light signals with or without gates or bells indicating the approach of a train, and shall not proceed until the driver can do so safely. After stopping as required and upon proceeding when it is safe to do so, the driver of any vehicle shall cross only in such gear of the vehicle that there will be no necessity for manually changing gears while traversing such crossing and the driver shall not manually shift gears while crossing the track or tracks. Following are the types of vehicles for which this regulation applies:

(1) Every school or commercial bus;

(2) every motor vehicle transporting any quantity of chlorine;

(3) every motor vehicle which, in accordance with the regulations of the department of transportation, is required to be marked or placarded with one of the following markings:

(A) Explosives A;

(B) Explosives B;

(C) Poison Gas;

(D) Flammable solid W;

(E) Radioactive;

(F) Flammable;

(G) Blasting agent;

(H) Nonflammable gas;

(I) Chlorine;

(J) Poison;

(K) Oxygen;

(L) Flammable gas;

(M) Combustible;

### [BACK TO KAR INDEX](#)

(N) Flammable solid;

(O) Oxidizer;

(P) Organic peroxide;

(Q) Corrosive; or

(R) Dangerous;

(4) every cargo tank motor vehicle, whether loaded or empty, used for the transportation of any hazardous material as defined in 49 C.F.R. 170-189;

(5) every cargo tank motor vehicle transporting a commodity which at the time of loading has a temperature above its flashpoint as determined by 49 C.F.R. 173.115;

(6) every cargo tank motor vehicle, whether loaded or empty, transporting any commodity under an exemption issued in accordance with 49 C.F.R. 107.101-107.123.

(b) Exceptions to the requirement for vehicles to stop at every railroad grade crossing shall be:

(1) Any railroad grade crossing at which traffic is controlled by a police officer or human flagman;

(2) any railroad grade crossing controlled by a functioning highway traffic signal transmitting a green indication which, under local law, permits the vehicle to proceed across the railroad tracks without slowing or stopping;

(3) any railroad grade crossing which has been abandoned or its use discontinued with track or tracks still in place with a sign reading "TRACKS OUT OF SERVICE";

(4) any industrial or spur line railroad grade crossing marked with a sign reading "EXEMPT." Such exempt signs shall be erected only by or with the consent of the appropriate state or local authority;

(5) a railroad grade crossing used exclusively for industrial switching purposes, within a business district defined in K.S.A. 8-1407, and amendments, thereto. This type of crossing shall also, as in the previous section (d), be marked with a sign reading "EXEMPT." (Authorized by and implementing K.S.A. 1989Supp. 8-1553; effective May 1, 1976; amended May 1, 1983; amended May 1, 1984; amended May 1, 1989; amended Aug. 13, 1990)

**[BACK TO KAR INDEX](#)**

## Kansas Statutes Annotated

### Kansas Activity/School Buses/Passenger Vehicles

Statutes listed below are linked to the Kansas Office of Revisor of Statutes website

#### INDEX

8-2,135	Same; commercial driver's license, contents; endorsements or restrictions; expiration; renewal
8-2,150	Commercial driver's licenses; diversion agreements not allowed
8-301	Private use forbidden
8-305	Marking of vehicles of political subdivisions; how marked; exceptions
8-1344	Child passenger safety; restraining systems for children under the age of four; use of booster seats, when; use of seat belts by children, when; exceptions
8-1553	Certain vehicles required to stop at railroad grade crossings; exceptions
8-1556	Overtaking and passing school bus; actuation of visual signals by driver of bus, when; required school bus markings
8-1556a	Passing church and day care program buses; use of signals
8-1730	Lighting equipment and warning devices on school buses
8-2009	Regulations governing design and operation of school buses; effect of noncompliance.
8-2009a	School buses; exemptions from requirements of law and regulations; approval by state board of education
8-2708	Same; insurance; requirements; additional insured parties; proof of insurance
8-2721	Same; contracts with boards of education to transport students; requirement
21-6301	Criminal use of weapons
72-1149	Leases and lease-purchase agreements; terms and conditions; cash basis and budget laws not applicable
72-1151	School district expenditures over \$20,000; requirements relating to bids and bidders; exemptions
72-13,101	Interdistrict agreements for provision of educational programs authorized; conditions
72-1881	Motor vehicle liability insurance and medical payments insurance
72-3123	Nonresident pupils; attendance in school
72-3124	Same; provision of transportation authorized; applicability; conditions
72-3216	Nonresident students; school district policies to determine nonresident student enrollment capacity.
72-3353	Fees; supplemental charges authorized to be prescribed and collected; disposition of moneys
72-6131	Definitions
72-6132	Policies requiring expulsion of pupils for possession of weapons, adoption, filing; hearings; modification of requirement authorized; referral procedure; annual report; circumstances when policy not applicable.
72-6133	Duties of state board of education; failure of boards to adopt and file policies, penalties.
72-6147	Bullying, school district policies.
72-6266	Certification of health; form and contents; expense of obtaining; alternative certification
72-6284	Jason Flatt act. (Suicide Prevention and Awareness)
72-6486	Definitions.
72-6487	Transportation of pupils;
72-6488	Transportation routes; regular school route
72-6489	Contracts for transportation of certain students; mileage rates
72-6490	Transportation for activities; rules and regulations for school bus operation
72-6491	Transportation of nonpublic school pupils
72-6492	Interschool district contracts for transportation
72-6493	Compliance with uniform act regulating traffic on highways; additional regulation
72-6494	Transportation of nonresident pupils and students; when authorized; conditions; limitations
72-6495	Severability
72-6496	Used school buses; purchaser's duty to modify; exceptions
72-6497	Same; penalty for violations
72-6498	School bus use for purposes other than pupil transportation; policy for provision authorized
72-6499	School bus transportation for adult students; policy for provision authorized
72-64,100	Transportation of pupils; use of school bus required; when
72-64,101	Transportation of certain pupils from U.S.D. 207 to U.S.D. 453

Note: Statutes not listed can be found on the Kansas Office of Revisor of Statutes website at [www.ksrevisor.org](http://www.ksrevisor.org)

Listed below are a number of pupil transportation mandates to be followed by Kansas public school districts, contract transportation providers and non-public schools. Further information can be found on the School Bus Safety Unit's web site.

***"School transportation provider" is defined as anyone who drives a school bus or activity bus and transports Kansas students. It also includes an individual hired primarily to provide transportation for Kansas students with a school passenger vehicle.***

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**ACTIVITY TRIP PROCEDURES:** Prior to each activity trip in a school bus or activity bus, a brief explanation concerning emergency evacuation procedures and location of emergency exits for the bus being used shall be given.

K.A.R. 91-38-9

**ADULT SUPERVISION:** Each school district shall ensure that there is adult supervision during loading and unloading procedures at each school building, except at buildings utilized exclusively for senior high school students.

KAR 91-38-8

**DISCLOSURE STATEMENT:** Each school transportation provider shall sign a statement as to whether or not they have been convicted of any felony involving another person or any crime involving a child or any major traffic violations. The prospective driver shall also sign a statement authorizing the prospective employer to obtain his/her driving record for review. Form is available on our web site.

K.A.R. 91-38-6

**DRIVER TRAINING REQUIREMENTS:** Each school transportation provider shall comply with the following requirements:

- School transportation providers who drive an activity or school bus shall be provided a minimum of 12 hours training in a school bus. Six hours of the training must be completed before the driver is allowed to transport students; however, the second six-hour block may be completed while transporting students, so long as the appointed driver-trainer accompanies the trainee on the bus route or activity trip. Note: A CLP (Commercial Learners Permit) holders are prohibited from operating a school bus with students under Federal Law 49 CFR 383.25
- Each school transportation provider shall complete an approved first aid and CPR course within 30 days after the first day the driver transports students, and certification shall be kept current. Drivers who are currently certified emergency medical service providers are not required provided their EMS certification remains current.
- Each school transportation provider shall successfully complete a vehicle accident prevention course approved by the state department of education, within 30 days after the first day the driver transports students and maintain certification by completion of an accident prevention course at least every three years.
- Each school transportation provider shall attend 10 safety meetings or the proportional number of meeting for the amount of time employed during the school year.

K.A.R. 91-38-6



**DRUG & ALCOHOL CLEARINGHOUSE:** Each school district, as an employer, is responsible for complying with the FMCSA (Federal Motor Carrier Safety Administration) drug and alcohol clearinghouse. These requirements include but are not limited to:

- Conducting annual limited queries on all CDL drivers through the clearinghouse
- Conducting full queries on new driver applicants through the clearinghouse
- Obtaining written consent from new employees for drug & alcohol information from previous employers for the 3-year history not covered by the FMCSA Drug and Alcohol Clearing House

**DRUG & ALCOHOL TESTING:** Each school district, as an employer, is responsible for meeting all applicable requirements and procedures of the Federal DOT (Department of Transportation) agency regulations regarding alcohol and drug testing of any employee required to have a CDL (Commercial Driver's License). These requirements include but are not limited to:

- Files
- Written policy on drug and alcohol use
- Provide educational materials on regulations to employees
- Provide copies of districts drug & alcohol policy to employees
- Maintain a statement signed by each employee certifying receipt of all materials
- Reasonable Suspicion Training for Supervisors
- Pre-employment Testing
- Random Testing
- Post-accident Testing

Note: Given the complexity of the DOT's drug and alcohol testing requirements, it is strongly suggested and recommended school districts hire a C/TPA (Consortium/Third-Party Administrator) to help manage their federally mandated CDL alcohol and drug testing program.

**EMERGENCY PROCEDURES:** Each school district is tasked with development and adoption of a policy for procedures to be followed when an emergency situation arises while transporting students. All students who regularly ride the bus shall receive instruction in these procedures at least once each semester.  
K.A.R. 91-38-9

**EVACUATION DRILLS:** Each student riding a route bus is required to participate in an emergency evacuation of the school bus at least once each semester. Drills must be documented with the date, number of student participants, and names of supervisory personnel.  
K.A.R. 91-38-9

**FUEL:** If an activity bus, school bus or school passenger vehicle is refueled during any trip when passengers are being transported, the school transportation provider shall unload all passengers from the vehicle and turn off the vehicle's motor before beginning refueling procedures. Fuel shall not be transported in any manner, except in the vehicle's fuel tank.  
KAR 91-38-7

**LUBRICATION, MAINTENANCE, AND REPAIR RECORDS:** The transportation supervisor shall be responsible for all maintenance and repair records for vehicles used for student transportation. These records must be kept for as long as the school owns the vehicle, and for at least two years after the vehicle is sold or traded.  
K.A.R. 91-38-3

**OBSTRUCTIONS:** Each school transportation provider shall ensure that openings for the service door, emergency exits, and aisles are kept clear of any obstructions (coolers, book bags, band instruments, school projects, sports equipment, etc.) at all times.

K.A.R. 91-38-7

**PHYSICAL EXAMINATIONS:** Each school transportation provider is required to comply with physical qualification requirements of 49 C.F.R., Part 391.41 (most commonly known as a "DOT physical").

K.A.R. 91-38-6

**PHYSICAL EXAMINATION CERTIFICATES:** A copy of the current physical examination certificate shall be kept on file for each school transportation provider. When a school transportation provider terminates employment, the most recent physical examination certificate shall be kept for a minimum of two years following termination.

K.A.R. 91-38-6

**PRE-TRIP INSPECTION:** All school buses, activity buses and school passenger vehicles must have a pre-trip inspection completed by the school transportation provider before each trip and be documented prior to transporting students.

K.A.R. 91-38-7

**SAFETY MEETINGS:** The transportation supervisor is required to conduct at least 10 safety meetings per year for all school transportation providers. Every school transportation provider (including substitutes) shall attend. If a new driver is hired during the school year, he/she is required to attend meetings proportional to the amount of time employed during the school year. (example: employed for 6-month, attendance at 5 meetings would be required) The supervisor shall keep roster and agenda for these meetings on file for a period of two years.

K.A.R. 91-38-3

**SCHOOL PASSENGER VEHICLES:** The use of 12 and 15 passenger rated vans for student transportation is illegal. It is illegal to remove seats from a 12 or 15 passenger rated van to meet the state and federal mandated passenger rating requirement for student transportation.

KSA 72-64,100

**SCHOOL TRANSPORTATION PROVIDER QUALIFICATIONS:** A CDL (Commercial Driver's License) class A or B license is required for all vehicles with a gross weight over 26,001 pounds and/or rated to transport 16 or more passengers. A CDL class A, B, or C license is required for vehicles with a gross weight rating of less than 26,000 pounds and/or rated for passenger capacity of 16 or more. All CDL's must have a "P" passenger and "S" school bus endorsement. Drivers of school passenger vehicles and buses rated less than 26,000 pounds, or for fewer than 16 passengers must maintain an appropriate non-commercial driver's license.

K.A.R. 91-38-6

**SEAT BELTS IN SCHOOL PASSENGER VEHICLES:** Each school district shall ensure that occupant restraint systems are provided for, and utilized by, all occupants of school passenger vehicles. Size-appropriate child safety restraining systems shall be utilized, pursuant to K.S.A. 8-1344.

K.A.R. 91-38-2

**SPEED LIMITS:** The board of education of any school district may establish by board policy lower maximum speed limits for the operation of such district's school buses  
KSA 8-1558

**STUDENTS WITH SPECIAL NEEDS:** Each school district shall, before transportation, notify the transportation supervisor of any student with special health care concerns, special needs for transportation, or an individualized education program requiring transportation. The supervisor shall ensure that all drivers, substitute drivers, and attendants are informed of these needs and receive any training that is necessary to safely transport the student or to accommodate the student's special needs.  
KAR 91-38-3

**SUBSTITUTE DRIVERS:** Substitute activity and school bus drivers shall complete the same training requirements as regular route drivers.  
K.A.R. 91-38-6

**VEHICLE CLEANLINESS:** School buses, activity buses and school passenger vehicles should be kept clean. The interior should not present any health hazards to students or district employees (i.e. dirt, dust, mold discarded food items, etc.). All school vehicles represent the school district and should be considered an extension of the classroom with the same expectation for cleanliness.

**WAIVER OF PHYSICAL REQUIREMENTS:** A school transportation provider who does not meet the physical qualification requirements for any reason may apply for a waiver of those particular requirements by following the provisions found in K.A.R. 91-38-6.

For more information on these mandates or other questions on pupil transportation in Kansas, please feel free to call the School Bus Safety Unit staff or visit our website at [www.ksde.org](http://www.ksde.org)

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## **BUS BODY AND CHASSIS SPECIFICATIONS**

### **AIR CLEANER**

- A. A dry element air cleaner shall be provided.
- B. All diesel engine air filters shall include a latch-type restriction indicator that retains the maximum restriction developed during operation of the engine. The indicator should include a reset control so the indicator can be returned to zero when desired.

### **AISLE**

All emergency exit doors shall be accessible by a 12-inch minimum aisle. The aisle shall be unobstructed at all times by any type of barrier, seat, wheelchair or tie-down, unless a flip seat is installed and occupied. The track of a track seating system is exempt from this requirement. A flip seat in the unoccupied (up) position shall not obstruct the 12-inch minimum aisle to any side emergency exit door.

### **AXLES**

The front and rear axle and suspension systems shall have a gross axle weight rating (GAWR) at ground commensurate with the respective front and rear weight loads of the bus loaded to the rated passenger capacity.

### **BACK-UP WARNING ALARM**

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.

### **BRAKES: GENERAL**

- A. The chassis brake system shall conform to the provisions of FMVSS Nos. 105, Hydraulic and Electric Brake Systems, 106, Brake Hoses, and 121, Air Brake Systems, as applicable. All buses shall have either a parking pawl in the transmission or a park brake interlock that requires the service brake to be applied to allow release of the parking brake.
- B. The anti-lock brake system (ABS), provided in accordance with FMVSS No. 105, Hydraulic and Electric Brake Systems or No. 121, Air Brake Systems, shall provide wheel speed sensors for each front wheel and for each wheel on at least one rear axle. The system shall provide anti-lock braking performance for each wheel equipped with sensors (Four Channel System).

- C. All brake systems shall be designed to permit visual inspection of brake lining wear without removal of any chassis component(s).
- D. The brake lines, booster-assist lines, and control cables shall be protected from excessive heat, vibration and corrosion and installed in a manner that prevents chafing.
- E. The parking brake system for either air or hydraulic service brake systems may be of a power-assisted design. The power parking brake actuator should be a device located on the instrument panel within reach of a seated 5th percentile female driver. As an option, the parking brake may be set by placing the automatic transmission shift control mechanism in the “park” position.
- F. The power-operated parking brake system may be interlocked to the engine key switch. Once the parking brake has been set and the ignition switch turned to the “off” position, the parking brake cannot be released until the key switch is turned back to the “on” position.

## **BRAKES: HYDRAULIC**

Buses using hydraulic-assist brakes shall meet requirements of FMVSS 105.

## **BRAKES: AIR**

- A. The air pressure supply system shall include a desiccant-type air dryer installed according to the manufacturer’s recommendations. The air pressure storage tank system may incorporate an automatic drain valve.
- B. The chassis manufacturer shall provide an accessory outlet for air-operated systems installed by the body manufacturer. This outlet shall include a pressure protection valve to prevent loss of air pressure in the service brake reservoir.
- C. For air brake systems, an air pressure gauge shall be provided in the instrument panel capable of complying with Commercial Driver’s License (CDL) pre-trip inspection requirements.
- D. Air brake systems shall include a system for anti-compounding of the service brakes and parking brakes.
- E. Air brakes shall have both a visible and audible warning device whenever the air pressure falls below the level where warnings are required under FMVSS No. 121, *Air Brake Systems*.



## **BUMPER: FRONT**

- A. School buses shall be equipped with a front bumper.
- B. The front bumper on buses of Type A-2 (with GVWR greater than 14,500 pounds), Type B, Type C, and Type D shall be equivalent in strength and durability to pressed steel channel at least  $\frac{3}{16}$  inches thick and not less than 8 inches wide (high). It shall extend beyond the forward-most part of the body, grille, hood and fenders and shall extend to the outer edges of the fenders at the bumper's top line. Type A buses having a GVWR of 14,500 pounds or less may be equipped with an OEM-supplied front bumper. The front bumper shall be of sufficient strength to permit being pushed by another vehicle on a smooth surface with a 5 degree, (8.7 percent) grade, without permanent distortion. The contact point on the front bumper is intended to be between the frame rails, with as wide a contact area as possible. If the front bumper is used for lifting, the contact points shall be under the bumper attachments to the frame rail brackets unless the manufacturer specifies different lifting points in the owner's manual. Contact and lifting pressures should be applied simultaneously at both lifting points.
- C. The front bumper, except breakaway bumper ends, shall be of sufficient strength to permit pushing a vehicle of equal gross vehicle weight, per Section B, without permanent distortion to the bumper, chassis or body.
- D. The bumper shall be designed or reinforced so that it will not deform when the bus is lifted by a chain that is passed under the bumper (or through the bumper if holes are provided for this purpose) and attached to both tow hooks/eyes. For the purpose of meeting this specification, the bus shall be empty and positioned on a level, hard surface, and both tow hooks/eyes shall share the load equally.

## **BUMPER: REAR**

- A. The bumper on Type A-1 buses shall be a minimum of 8 inches wide (high). Bumpers on Types A-2, B, C and D buses shall be a minimum of 9  $\frac{1}{2}$  inches wide (high). The bumper shall be of sufficient strength to permit being pushed by another vehicle of similar size and being lifted by the bumper without permanent distortion.
- B. The bumper shall wrap around the back corners of the bus. It shall extend forward at least 12 inches, measured from the rear-most point of the body at the floor line, and shall be mounted flush with the sides of the body or protected with an end panel.
- C. The bumper shall be attached to the chassis frame in such a manner that it may be removed. It shall be braced to resist deformation of the bumper resulting from impact from the rear or the side. It shall be designed to discourage hitching of rides by an individual.

- D. The bumper shall extend at least one inch beyond the rear-most part of the body surface, measured at the floor line.
- E. The bottom of the rear bumper shall not be more than 30 inches above ground level.

## **CERTIFICATION**

Upon request of the state agency having student transportation jurisdiction, the chassis and body manufacturer(s) shall certify that its(their) product(s) meets the state's minimum standards on items which are not covered by FMVSS certification requirements of 49 CFR, Part 567: *Certification*.

## **COLOR**

- A. The school bus body shall be painted National School Bus Yellow (NSBY). (See APPENDIX B.)
- B. The body exterior trim, as defined by individual states, shall be black or NSBY.
- C. Except for the vertical portion of the front and rear roof caps, the roof of the bus may be painted white. (See illustration in APPENDIX B, Placement of Retroreflective Markings.)
- D. The chassis and front bumper shall be black. Body, cowl, hood and fenders shall be in National School Bus Yellow (NSBY). The flat top surface of the hood may be non-reflective black or NSBY. (See APPENDIX B.)
- E. Wheels may be silver, gray, white, yellow or black.
- F. Multifunction school activity buses (MFSABs) shall be exempt from these requirements.

## **COMMUNICATIONS SYSTEMS**

(See OPERATIONS section.)

## **CONSTRUCTION**

- A. Side Intrusion Test: The bus body shall be constructed to withstand an intrusion force equal to the curb weight of the vehicle or 20,000 pounds, whichever is less. Each vehicle shall be capable of meeting this requirement when tested in accordance with the procedures set forth below. The complete body structure, or a representative seven-body section mock up with seats installed, shall be load-tested at a location  $24 \pm 2$  inches above the floor line, with a maximum 10 inch diameter cylinder, 48 inches long, mounted in a horizontal plane.

The cylinder shall be placed as close as practical to the mid-point of the tested structure, spanning two internal vertical structural members. The cylinder shall be statically loaded to the required force of curb weight or 20,000 pounds, whichever is less, in a horizontal plane with the load applied from the exterior toward the interior of the test structure. When the minimum load has been applied, the penetration of the loading cylinder into the passenger compartment shall not exceed 10 inches from its original point of contact. There can be no separation of lapped panels or construction joints. Punctures, tears or breaks in the external panels are acceptable but are not permitted on any adjacent interior panel. Body companies shall certify compliance with this intrusion requirement, and include test results, as requested.

- B. Construction shall be reasonably dust-proof and watertight.

## **CROSSING CONTROL ARM**

- A. School buses may be equipped with a crossing control arm mounted on the right side of the front bumper. When opened, this arm shall extend in a line parallel to the body side and aligned with the right front wheel.
- B. All components of the crossing control arm and all connections shall be weatherproofed.
- C. The crossing control arm shall incorporate system connectors (electrical, vacuum or air) at the gate and shall be easily removable to allow for towing of the bus.
- D. The crossing control arm shall be constructed of non-corrodible or nonferrous material or shall be treated in accordance with the body sheet metal specification. (See BUS BODY AND CHASSIS SPECIFICATIONS, Metal Treatment.)
- E. There shall be no sharp edges or projections that could cause injury or be a hazard to students. The end of the arm shall be rounded.
- F. The crossing control arm shall extend a minimum of 70 inches (measured from the bumper at the arm assembly attachment point) when in the extended position. The crossing control arm shall not extend past the end of the bumper when in the stowed position.
- G. The crossing control arm shall extend simultaneously with the stop signal arm(s), activated by stop signal arm controls.
- H. An automatic recycling interrupt switch may be installed for temporarily disabling the crossing control arm.

- I. The assembly shall include a device attached to the bumper near the end of the arm to automatically retain the arm while in the stowed position. That device shall not interfere with normal operations of the crossing control arm.

## 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.

**Note:** 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 stepwell may be the re-circulating air type.
- D. Auxiliary fans are not considered defrosting or defogging systems.
- E. Portable heaters shall not be used.

## DOORS

- A. The entrance door shall be under the driver's control, designed to afford easy release and to provide a positive latching device on manual operating doors to prevent accidental opening. When a hand lever is used, no part shall come together that will shear or crush fingers. Manual door controls shall not require more than 25 pounds of force to operate at any point throughout the range of operation, as tested on a 10% grade, both uphill and downhill.
- B. The primary entrance door shall be located on the right side of the bus, opposite and within direct view of the driver.
  1. In addition, buses may be equipped with a left side entrance door located immediately behind the driver to be used exclusively for curb side loading/unloading on one-way streets.
  2. Buses equipped with a left side entrance door shall have a mirror mounted in the upper right corner of the interior of the bus so as to provide a clear view of the left side entrance door and stepwell.

- C. The entrance door shall have a minimum horizontal opening of 24 inches and a minimum vertical opening of 68 inches.
- D. The entrance door shall be a split-type door and shall open outward.
- E. All entrance door glass shall be approved safety glass. The bottom of each lower glass panel shall be not more than 10 inches from the top surface of the bottom step. The top of each upper glass panel when viewed from the interior shall be not more than 3 inches below the interior door control cover or header pad.
- F. Vertical closing edges on entrance doors shall be equipped with flexible material.
- G. All door openings shall be equipped with padding at the top edge of the opening. Padding shall be at least three inches wide and one inch thick and extend the full width of the door opening.
- H. On power-operated entrance doors, the emergency release valve, switch or device to release the entrance door must be placed above or to the immediate left or immediate right of the entrance door and must be clearly labeled. The emergency release valve, switch or device shall work in the absence of power.

## **DRIVE SHAFT**

The drive shaft shall be protected by a metal guard or guards around the circumference of the drive shaft to reduce the possibility of its whipping through the floor or dropping to the ground, if broken.

## **ELECTRICAL SYSTEM**

- A. Battery
  - 1. 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 25 amps. Higher capacities may be required, depending upon optional equipment and local environmental conditions.
  - 2. The manufacturer shall securely attach the battery on a slide-out or swing-out tray in a closed, vented compartment in the body skirt or chassis frame so that the battery is accessible for convenient servicing from the outside. When in the stored position, the tray shall be retained by a securing mechanism capable of holding the tray [with battery(ies)] in position when subjected to a 5g load from any direction. The battery compartment door or cover, if separate from the tray, shall be hinged at the front or top. It shall be secured by a positive operated latching system or other type fastener. The door may

be an integral part of the battery slide tray. The door or cover must fit tightly to the body, and not present sharp edges or snagging points. Battery cables shall meet SAE requirements. Battery cables shall be of sufficient length to allow the battery tray to fully extend. Any chassis frame-mounted batteries shall be relocated to a battery compartment on Type A buses

3. All batteries are to be secured in a sliding tray except that on van conversion or cutaway front-section chassis, batteries may be secured in accordance with the manufacturer's standard configuration. In these cases, the final location of the battery and the appropriate cable lengths shall be agreed upon mutually by the chassis and body manufacturers. However, in all cases the battery cable provided with the chassis shall have sufficient length to allow some slack, and shall be of sufficient gauge to carry the required amperage.
4. 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.

**B. Alternator**

1. All Type A and Type B buses with a GVWR of 15,000 pounds or less shall have a minimum 130-amp alternator. Buses equipped with an electrically powered wheelchair lift and/or air conditioning shall be equipped with the highest rated capacity available from the chassis OEM.
2. All buses over 15,000 pounds GVWR shall be equipped with a heavy-duty truck-or bus-type alternator having a minimum output rating of 200 amps or higher, and should produce a minimum current output of 50 percent of the rating at engine idle speed.
3. All other buses than those described in B1 equipped with an electrically powered wheelchair lift and/or air conditioning shall have a minimum alternator output of 240 amps and may be equipped with a device that advances the engine idle speed when the voltage drops to, or below, a pre-set level.
4. A belt-driven alternator shall be capable of handling the rated capacity of the alternator with no detrimental effect on any other driven components. (For estimating required alternator capacity, see School Bus Manufacturers Technical Council's publication, "School Bus Technical Reference," available at <http://www.nasdpts.org>.)
5. A direct/gear-drive alternator is permissible in lieu of a belt-driven alternator.



C. Electrical Components

Materials in all electrical components shall contain no mercury.

D. Wiring, Chassis

1. All wiring shall conform to current applicable recommended practices of the Society of Automotive Engineers (SAE). All wiring shall use color and at least one other method for identification. The other method shall be either a number code or name code, and each chassis shall be delivered with a wiring diagram that illustrates the wiring of the chassis.
2. The chassis manufacturer of an incomplete vehicle shall install a readily accessible terminal strip or connector on the body side of the cowl or in an accessible location in the engine compartment of vehicles designed without a cowl. The strip or connector shall contain the following terminals for the body connections:
  - a. Main 100-amp body circuit;
  - b. Tail lamps;
  - c. Right turn signal;
  - d. Left turn signal;
  - e. Stop lamps;
  - f. Back-up lamps; and
  - g. Instrument panel lamps (controlled by dimmer switch).
3. An appropriate identifying diagram (color plus a name or number code) for all chassis electrical circuits shall be provided to the body manufacturer for distribution to the end user.
4. Wiring for the headlamp system must be separate from the electronic controlled body solenoid/module.

E. Wiring, Body

1. All wiring shall conform to current applicable SAE recommended practices.
2. All wiring shall have an amperage capacity exceeding the design load by at least 25%. All wiring splices are to be accessible and noted as splices on the wiring diagram.

3. A body wiring diagram, sized to be easily read, shall be furnished with each bus body or affixed to an area convenient to the electrical accessory control panel.
4. The body power wire shall be attached to a special terminal on the chassis.
5. Each wire passing through metal openings shall be protected by a grommet.
6. Wires not enclosed within the body shall be fastened securely at intervals of not more than 18 inches. All joints shall be soldered or joined by equally effective connectors, which shall be water-resistant and corrosion-resistant.
7. Wiring shall be arranged in circuits, as required, with each circuit protected by a fuse breaker or electronic protection device. A system of color and number-coding shall be used and an appropriate identifying diagram shall be provided to the end user, along with the wiring diagram provided by the chassis manufacturer. The wiring diagrams shall be specific to the bus model supplied and shall include any changes to wiring made by the body manufacturer. Chassis wiring diagrams shall be supplied to the end user. The following body interconnecting circuits shall be color-coded, as noted:

<u>FUNCTION</u>	<u>COLOR</u>
Left Rear Directional Lamp	Yellow
Right Rear Directional Lamp	Dark Green
Stop Lamps	Red
Back-up Lamps	Blue
Tail Lamps	Brown
Ground	White
Ignition Feed, Primary Feed	Black

The color of the cables shall correspond to SAE J1128, *Low-Tension Primary Cable*.

8. Wiring shall be arranged in at least six regular circuits, as follows:
  - a. Head, tail, stop (brake), clearance and instrument panel lamps;
  - b. Step well lamps shall be actuated when the entrance door is open;
  - c. Dome lamps;
  - d. Ignition and emergency door signal;
  - e. Turn signal lamps; and
  - f. Alternately flashing signal lamps.

9. Any of the above combination circuits may be subdivided into additional independent circuits.
  10. Heaters and defrosters shall be wired on an independent circuit.
  11. Whenever possible, all other electrical functions (such as sanders and electric-type windshield wipers) shall be provided with independent and properly protected circuits.
  12. Each body circuit shall be coded by number or letter on a diagram of circuits and shall be attached to the body in a readily accessible location.
- F. Buses may be equipped with a 12-volt power port in the driver's area.
- G. 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.
- H. The entire electrical system of the body shall be designed for the same voltage as the chassis on which the body is mounted.

## **EMERGENCY EQUIPMENT**

- A. Fire Extinguisher
1. The bus shall be equipped with at least one UL-approved pressurized, dry chemical fire extinguisher. The extinguisher shall be secured in a mounted bracket, located in the driver's compartment and readily accessible to the driver and passengers. A pressure gauge shall be mounted on the extinguisher and shall be easily read without moving the extinguisher from its mounted position.
  2. The fire extinguisher shall have a rating of 2-A:10-BC, or greater. The operating mechanism shall be secured with a type of seal that will not interfere with the use of the fire extinguisher.
- B. First Aid Kit
1. The bus shall have a removable, moisture-proof and dust-proof first aid kit in an accessible place in the driver's compartment. It shall be mounted and identified as a first aid kit. The location for the first aid kit shall be marked. Contents of the first aid kit shall be in compliance with state standards.

2. Suggested contents include:
  - 2 – 1-inch x 2 ½ yards of adhesive tape rolls
  - 24 – Sterile gauze pads 3x3 inches
  - 100 – ¾ x 3 inches adhesive bandages
  - 8 – 2-inch bandage compress
  - 10 – 3-inch bandage compress
  - 2 – 2-inch x 6 foot sterile gauze roller bandages
  - 2 – Non-sterile triangular bandages, minimum 39x35x54 inches with two safety pins
  - 3 – Sterile gauze pads 36x36 inches
  - 3 – Sterile eye pads
  - 1 – Rounded-end scissors
  - 1 – Pair medical examination gloves
  - 1 – Mouth-to-mouth airway

C. Body Fluid Clean-Up Kit

Each bus shall have a removable and moisture-proof body fluid clean-up kit accessible to the driver. It shall be mounted and identified as a body fluid cleanup kit. Contents of the body fluid clean-up kit shall be in compliance with state standards.

D. Warning Devices

Each school bus shall contain at least three retroreflective triangle road warning devices that meet the requirements of FMVSS No. 125, *Warning Devices*. They shall be mounted in an accessible place.

- E. Any piece of emergency equipment may be mounted in an enclosed compartment, provided the compartment is labeled in not less than one inch letters, identifying each piece of equipment contained therein.

## EMERGENCY EXITS

- A. Any installed emergency exit shall comply with the design and performance requirements of FMVSS No. 217, *Bus Emergency Exits and Window Retention and*

*Release*, applicable to that type of exit, regardless of whether or not that exit is required by FMVSS No. 217.

B. Emergency Window Requirements

1. The rear emergency window shall have a lifting assistance device that will aid in lifting and holding the rear emergency window open.
2. Side emergency exit windows, when installed, may be vertically hinged on the forward side of the window. No side emergency exit window will be located above a stop arm.

C. Emergency Door Requirements

1. The exposed area of the upper panel of emergency doors shall be a minimum of 400 square inches of approved safety glazing.
2. If installed, all other glass panels on emergency doors shall be approved safety glazing.
3. There shall be no steps leading to an emergency door.
4. There shall be no obstruction higher than  $\frac{1}{4}$  inch across the bottom of any emergency door opening. Fasteners used within the emergency exit opening shall be free of sharp edges or burrs.

D. Emergency Exit Requirements: The use of the following tables is to determine the required number and types of emergency exits to comply with this specification, based on the bus manufacturer's equipped seating capacity.

1. Use **Table 1** if the bus contains a rear emergency door, or
2. Use **Table 2** if the bus contains a rear pushout emergency window AND a left side emergency door, as required by FMVSS No. 217 for school buses without a rear emergency door.
3. When using either Table 1 or Table 2:
  - a. Enter the Table at the appropriate "CAPACITY" and select the desired row from the options for that capacity.
  - b. A school bus will meet the requirements of this specification and the requirements of FMVSS 217 if it contains the types and quantities of emergency exits listed on the row selected.

<b>TABLE 1</b> BUSES WITH REAR EMERGENCY DOOR (All Front Engine Buses)					
Available Combinations By Capacity	Manufacturers Equipped Capacity	Shall Have	And Shall Also Have		
		Roof Hatch	L. Side Emerg. Exit Windows	R. Side Emerg. Exit Windows	L. Side Emerg. Exit Door
1-45	1-45	1	0	0	0
46-77	46-77	2	1	1	0
	46-77	2	0	0	1
78-93	78-93	2	2	2	0
	78-93	2	1	1	1

<b>TABLE 2</b> BUSES WITH REAR PUSHOUT WINDOW AND LEFT SIDE EMERGENCY DOOR (All Rear Engine Buses)					
Available Combinations By Capacity	Manufacturers Equipped Capacity	Shall Have	And Shall Also Have		
		Roof Hatch	L. Side Emerg. Exit Windows	R. Side Emerg. Exit Windows	R. Side Emerg. Exit Door
1-45	1-45	1	0	0	0
46-89	46-89	2	1	1	0
	46-89	2	0	0	1
90-105	90-105	2	2	2	0
	90-105	2	1	1	1

## EXHAUST SYSTEM

- A. The exhaust pipe, after-treatment system and tailpipe shall be outside the bus body compartment and shall be attached to the chassis so any other chassis component is not damaged.
- B. The tailpipe and after-treatment system shall be constructed of a corrosion-resistant tubing material at least equal in strength and durability to 16-gauge steel tubing of equal diameter.
- C. The tailpipe may be flush with, or shall not extend more than two inches beyond, the perimeter of the body for side-exit pipe or the bumper for rear-exit pipe. The exhaust system shall be designed such that exhaust gas will not be trapped under the body of the bus.
- D. The tailpipe shall exit to the left or right of the emergency exit door in the rear of the vehicle or to the left side of the bus in front of or behind the rear drive axle or the tailpipe may extend through the bumper. The tailpipe exit location on all Types A-1 or B-1 buses may be in accordance to the manufacturer's standards. The tailpipe shall not exit beneath any fuel filler location, emergency door or lift door.
- E. The exhaust system shall be insulated in a manner to prevent any damage to any fuel system component.
- F. The design of the after treatment systems shall not allow active (non-manual) regeneration of the particulate filter during the loading and unloading of passengers. Manual regeneration systems will be designed such that unintentional operation will not occur.



- G. For after treatment systems that require Diesel Exhaust Fluid (DEF) to meet federally mandated emissions:
  - 1. The composition of Diesel Exhaust Fluid (DEF) must comply with International Standard ISO 22241-1. Refer to engine manufacturer for any additional DEF requirements.
  - 2. The DEF supply tank shall be sized to meet a minimum ratio of 3 diesel fills to 1 DEF fill.

## **FENDERS: FRONT**

- A. When measured at the fender line, the total spread of the outer edges of front fenders shall exceed the total spread of front tires when front wheels are in a straight-ahead position.
- B. Front fenders shall be properly braced and shall not require attachment to any part of the body.

## **FIRE SUPPRESSION SYSTEMS (OPTIONAL)**

- A. The chassis manufacturer may provide an automatic fire extinguisher system in the engine compartment.
- B. Fire suppression system nozzles shall be located in the engine compartment, under the bus, in the electrical panel or under the dash, but they shall not be located in the passenger compartment. The system must include a lamp or buzzer to alert the driver that the system has been activated.

## **FLOORS**

- A. The floor in the under-seat area, including tops of wheel housings, driver's compartment and toeboard, shall be covered with an elastomer floor covering, having a minimum overall thickness of .125 inch and a calculated burn rate of 0.1 mm per minute or less, using the test methods, procedures and formulas listed in FMVSS No. 302, *Flammability of Interior Materials*. The driver's area and toeboard area in all Type-A buses may be manufacturer's standard flooring and floor covering.
- B. The floor covering in the aisles shall be ribbed or other raised pattern elastomer and have a calculated burn rate of 0.1 mm per minute or less using the test methods, procedures and formulas listed in FMVSS No. 302. Minimum overall thickness shall be .187 inch measured from tops of ribs.

- C. The floor covering must be permanently bonded to the floor and must not crack when subjected to sudden changes in temperature. Bonding or adhesive material shall be waterproof and shall be a type recommended by the manufacturer of floor-covering material. All seams shall be sealed with waterproof sealer.
- D. On Types B, C and D buses, a flush-mounted, screw-down plate that is secured and sealed shall be provided to access the diesel or gasoline fuel tank sending unit and/or fuel pump. This plate shall not be installed under flooring material.

## **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.

## **FUEL SYSTEM**

- A. Fuel tank(s) having a minimum 25-gallon capacity shall be provided by the chassis manufacturer. Each tank shall be filled from and vented to the outside of the passenger compartment, and each fuel filler should be placed in a location where accidental fuel spillage will not drip or drain on any part of the exhaust system.
- B. The fuel system shall comply with FMVSS No. 301, *Fuel System Integrity*.
- C. Fuel tank(s) may be mounted between the chassis frame rails or outboard of the frame rails on either the left or 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. Installation of alternative fuel systems, including fuel tanks and piping from the tank to the engine, shall comply with all applicable fire codes in effect on the date of manufacture of the bus.

- F. Installation of Liquefied Petroleum Gas (LPG) tanks shall comply with National Fire Protection Association (NFPA) 58, *Liquefied Petroleum Gas Code*.
- G. Installation of Compressed Natural Gas (CNG) containers shall comply with FMVSS No. 304, *Compressed Natural Gas Fuel Container Integrity*.
- H. The CNG Fuel System shall comply with FMVSS No. 303, *Fuel System Integrity of Compressed Natural Gas Vehicles*.

## **GOVERNOR**

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.

## **HANDRAILS**

At least one handrail shall be installed. The handrail shall be a minimum of 1" diameter and be constructed from corrosion resistant material(s). 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.

## **HEATING SYSTEM, PROVISION FOR**

The engine shall be capable of supplying coolant at a temperature of at least 170 degrees Fahrenheit at the engine coolant thermostat opening. The coolant flow rate shall be 50 pounds per minute at the return end of 30 feet of one inch inside diameter automotive hot water heater hose. (See SBMTC-001, *Standard Code for Testing and Rating Automotive Bus Hot Water Heating and Ventilating Equipment*.)

## **HEATING AND AIR CONDITIONING SYSTEMS**

- A. Heating System
  - 1. The heater shall be hot water combustion type, electric heating element or heat pump.
  - 2. If only one heater is used, it shall be fresh-air or combination fresh-air and recirculation type.
  - 3. If more than one heater is used, additional heaters may be re-circulating air type.
  - 4. The heating system shall be capable of maintaining bus interior temperatures, as specified in test procedure SAE J2233.

5. Auxiliary fuel-fired heating systems are permitted, provided they comply with the following:
  - a. The auxiliary heating system shall utilize the same type fuel as specified for the vehicle engine;
  - b. The heater(s) may be direct, hot air-type or may be connected to the engine coolant system;
  - c. An auxiliary heating system, when connected to the engine coolant system, may be used to preheat the engine coolant or preheat and add supplementary heat to the heating system;
  - d. Auxiliary heating systems must be installed pursuant to the manufacturer's recommendations and shall not direct exhaust in such a manner that will endanger bus passengers;
  - e. All combustion heaters shall be in compliance with current Federal Motor Carrier Safety Regulations;
  - f. The auxiliary heating system shall require low voltage.
  - g. Auxiliary heating systems shall comply with FMVSS No. 301, *Fuel System Integrity*, and all other applicable FMVSS, as well as with SAE test procedures.
6. All forced-air heaters installed by body manufacturers shall bear a name plate that indicates the heater rating in accordance with SBMTC-001, *Standard Code for Testing and Rating Automotive Bus Hot Water Heating and Ventilating Equipment*. The plate shall be affixed by the heater manufacturer and shall constitute certification that the heater performance is as shown on the plate.
7. Heater hoses shall be adequately supported to guard against excessive wear due to vibration. The hoses shall not dangle or rub against the chassis or any sharp edges and shall not interfere with or restrict the operation of any engine function. Heater hoses shall conform to SAE J20c, *Coolant System Hoses*. Heater lines, cores, and elements on the interior of the bus shall be shielded to prevent scalding or burning of the driver or passengers.
8. Each hot water system installed by a body manufacturer shall include one shutoff valve in the pressure line and one shut-off valve in the return line, with both valves at the engine in an accessible location, except that on Types A and B buses, the valves may be installed in another accessible location.

9. All heaters of hot water type in the passenger compartment shall be equipped with a device, installed in the hot water pressure line, which regulates the water flow to all passenger heaters. The device shall be conveniently operated by the driver while seated. The driver and passenger heaters may operate independently of each other for maximum comfort.
10. On hot water type systems, accessible bleeder valves for removing air from the heater shall be installed in an appropriate place in the return lines of body company-installed heater.
11. Access panels shall be provided to make heater motors, cores, elements and fans readily accessible for service. An exterior access panel to the driver's heater may be provided.

**B. Passenger Compartment Air Conditioning (Optional)**

The following specifications are applicable to all types of school buses that may be equipped with air conditioning. This section is divided into three parts. Part 1 covers performance specifications, Part 2 covers test conditions and Part 3 covers other requirements applicable to all buses.

**1. Performance Specifications**

**a. Standard Performance**

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) three feet above the center point of the horizontal driver seat surface, (2) at the longitudinal midpoint of the body, and (3) three feet forward of the rear emergency door or, for Type D rear-engine buses, three feet forward of the end of the aisle. Note for the Type A vehicles placement of the rear thermocouple should be centered in the bus over the rear axle. The independent temperature reading of each temperature probe inside the bus shall be within a range of  $\pm 3$  degrees Fahrenheit of the average temperature at the conclusion of the test.

**b. High Performance**

The installed air conditioning system should cool the interior of the bus from 100 degrees to 70 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) three feet above the center point of the horizontal driver seat surface, (2) at the longitudinal midpoint of the body, and (3) three feet forward of the rear emergency door or, for Type D rear-engine buses, three feet forward of the end of the aisle. Note for the Type A vehicles placement of the rear thermocouple should be centered in the bus over the rear axle. The independent temperature reading of each temperature probe inside the bus shall be within a range of  $\pm 3$  degrees Fahrenheit of the average temperature at the conclusion of the test.

## 2. Test Conditions

The test conditions under which the above performance standards 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) heat-soaking the bus at 100 degrees Fahrenheit at a point measured two feet horizontally from the top of the windows on both sides of the bus, with windows open for two hours; and (3) closing windows, turning on the air conditioner with the engine running at  $1250 \pm 50$  RPM, and cooling the interior of the bus to 80 degrees Fahrenheit, (standard performance) or 70 degrees Fahrenheit (high performance), within 30 minutes while maintaining 100 degrees Fahrenheit outside temperature.

The manufacturer shall provide test results that show compliance with standard systems. If the bid specifies, 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.

## 3. Other Requirements

- a. Evaporator cases, lines and ducting (as equipped) shall be designed in such a manner that all condensation is effectively drained to the exterior of the bus below the floor level under all conditions of vehicle movement and without leakage on any interior portion of the bus;
- b. Evaporators and ducting systems shall be designed and installed to be free of projections or sharp edges. Ductwork shall be installed so that exposed edges face the front of the bus and do not present sharp edges;
- c. On school buses equipped with Type-2 seatbelts having anchorages above the windows, the ducting (if used) shall be placed at a height sufficient to not obstruct occupant securement anchorages. This clearance shall be provided along the entire length (except at



evaporator locations) of the passenger area on both sides of the bus interior;

- d. The body may be equipped with insulation, including sidewalls, roof, firewall, rear, inside body bows and plywood or composite floor insulation to reduce thermal transfer;
- e. All glass (windshield, service and emergency doors, side and rear windows) may be equipped with maximum integral tinting allowed by federal, state or ANSI standards for the respective locations, except that windows rear of the driver's compartment, if tinted, shall have approximately 28 percent light transmission;
- f. Electrical generating capacity shall be provided to accommodate the additional electrical demands imposed by the air conditioning system;
- g. Roofs may be painted white to aid in heat dissipation (See APPENDIX B); and
- h. Air intake for any evaporator assembly(ies), except for front evaporator of Type A-1, shall be equipped with replaceable air filter(s) accessible without disassembly of evaporator case.
- i. For all buses (except Type D rear engine transit) equipped with a rear evaporator assembly, evaporator shall not encroach upon head impact zone, but may occupy an area of less than 26.5 inches from the rear wall and 14 inches from the ceiling.
- j. For Type D rear engine transit buses equipped with a rear evaporator over the davenport, the evaporator assembly may not interfere with rear exit window and may not extend above the rear seating row.

## **HINGES**

All exterior metal door hinges shall be designed to allow lubrication to be channeled to the center 75% of each hinge loop without disassembly, unless they are constructed of stainless steel, brass or non-metallic hinge pins or other designs that prevent corrosion.

## **HORN**

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*.

## IDENTIFICATION

- A. The body shall bear the words “SCHOOL BUS” in black letters at least eight inches high on both front and rear of the body or on signs attached thereto. Lettering shall be placed as high as possible without impairment of its visibility. Letters shall conform to “Series B” of Standard Alphabets for Highway Signs. “SCHOOL BUS” lettering shall have a reflective background, or as an option, may be illuminated by backlighting. MFSABs are exempt from these requirements.
- B. Required lettering and numbering shall include:
1. District, company name or owner of the bus displayed at the beltline.
  2. The bus identification number displayed on the sides, on the rear and on the front.
- C. Other lettering, numbering or symbols which may be displayed on the exterior of the bus shall be limited to:
1. Bus identification number, minimum 12-inch high characters, on top of the bus, in addition to required numbering on the sides, rear and front;
  2. The location of the battery(ies) identified by the word “BATTERY” or “BATTERIES” on the battery compartment door in two inch lettering;
  3. Symbols or letters not to exceed 64 square inches of total display near the entrance door, displaying information for identification by the students of the bus or route served;
  4. Manufacturer, dealer or school identification or logos;
  5. Symbols identifying the bus as equipped for or transporting students with special needs as noted in SPECIALLY EQUIPPED SCHOOL BUS SPECIFICATIONS;
  6. Lettering on the rear of the bus relating to school bus flashing signal lamps or electronic warning sign; and
  7. Lettering relating to railroad stop procedures; and
  8. Identification of fuel type in 1-inch lettering adjacent to the fuel filler opening.

## INSIDE HEIGHT

Inside body height shall be 72 inches or more, measured metal to metal, at any point on the longitudinal centerline from the front vertical bow to the rear vertical bow. Inside body height

of Type A-1 buses shall be 62 inches or more. Inside height measurement does not apply to air conditioning equipment.

## **INSTRUMENTS AND INSTRUMENT PANEL**

A. The chassis shall be equipped with the instruments and gauges listed below:

**Note:** Telltale warning lamps in lieu of gauges are not acceptable, except as noted.

1. Speedometer;
2. Odometer that can be read without using a key and that will give accrued mileage (to seven digits), including tenths of miles, unless tenths of miles are registered on a trip odometer;

3. Tachometer;

**Note:** For types B, C and D buses, a tachometer shall be installed so as to be visible to the driver while seated in a normal driving position.

4. Voltmeter;

**Note:** An ammeter with graduated charge and discharge indications is permitted in lieu of a voltmeter; however, when used, the ammeter wiring must be compatible with the current flow of the system.

5. Oil pressure gauge;
6. Water temperature gauge;
7. Fuel gauge;
8. High beam headlamp indicator;
9. Brake air pressure gauge (air brakes), brake indicator lamp (vacuum/hydraulic brakes), or brake indicator lamp (hydraulic/hydraulic);
10. Turn signal indicator; and
11. Glow-plug indicator lamp, where appropriate.

B. All instruments shall be easily accessible for maintenance and repair.

C. The instruments and gauges shall be mounted on the instrument panel so that each is clearly visible to the driver while seated in a normal driving position.

- D. Instruments and controls must be illuminated as required by FMVSS No. 101, *Controls and Displays*.
- E. Multi-Function Gauge (MFG)
  - 1. The driver must be able to manually select any displayable function of the gauge on a MFG, whenever desired.
  - 2. Whenever an out-of-limits condition that would be displayed on one or more functions of a MFG occurs, the MFG controller should automatically display this condition on the instrument cluster. This should be in the form of an illuminated telltale warning lamp, as well as having the MFG automatically display the out-of-limits indications. If two or more functions displayed on the MFG go out of limits simultaneously, then the MFG should sequence automatically between those functions continuously until the condition(s) are corrected.
  - 3. The use of a MFG does not relieve the need for audible warning devices, where required.

## **INSULATION (OPTIONAL)**

- A. If thermal insulation is specified, it shall be fire-resistant, UL approved, with minimum R-value of 5.5. Insulation shall be installed so as to prevent sagging.
- B. If floor insulation is required, it shall be five-ply softwood plywood, nominal  $\frac{5}{8}$ -inch thickness and shall be equal to or exceed properties of the exterior-type, C-D Grade, as specified in the standard issued by U.S. Department of Commerce. When plywood is used, all exposed edges shall be sealed. Type A-1 buses may be equipped with nominal  $\frac{1}{2}$ -inch-thick plywood or equivalent material meeting the above requirements.

Equivalent material may be used to replace plywood, provided it has equal or greater insulation R-value, sound abatement, deterioration-resistant and moisture-resistant properties.

## **INTERIOR**

- A. The interior of the bus shall be free of all unnecessary projections, which include luggage racks and attendant handrails, to minimize the potential for injury. This specification requires inner lining on ceilings and walls. If the ceiling is constructed with lap joints, the forward panel shall be lapped by rear panel and exposed edges shall be beaded, hemmed, flanged or otherwise treated to minimize sharp edges. Buses may be equipped with a storage compartment for tools, tire chains and/or tow chains. (See BUS BODY AND BODY SPECIFICATIONS, Storage Compartment.)

- B. Interior overhead storage compartments may be provided if they meet the following criteria:
  - 1. Head protection requirements of FMVSS No. 222, *School Bus Passenger Seating and Crash Protection*, where applicable;
  - 2. Be completely enclosed and equipped with latching door (both door and latch sufficient to withstand a pushing force of 50 pounds applied at the inside center of the door);
  - 3. Have all corners and edges rounded with a minimum radius of one inch or be padded equivalent to door header padding;
  - 4. Be attached to the bus sufficiently to withstand a force equal to 20 times the maximum rated capacity of the compartment; and
  - 5. Have no protrusions greater than ¼ inch.
- C. The driver's area forward of the foremost padded barriers will permit the mounting of required safety equipment and vehicle operation equipment.
- D. Every school bus shall be constructed so that the noise level at the ear of the occupant nearest to the primary vehicle noise source shall not exceed 85 dBA when tested according to the procedure described in APPENDIX B.

## **LAMPS AND SIGNALS**

- A. Interior lamps which illuminate the aisle and the stepwell shall be provided. The stepwell lamp shall be illuminated by an entrance door-operated switch, to illuminate only when headlamps and clearance lamps are on and the entrance door is open.
- B. Body instrument panel lamps may be controlled by an independent dimmer switch or may be controlled by the dimmer that operates the gauge lighting.
- C. School bus alternately flashing signal lamps shall be provided, as described by law. MFSABs are exempt from this requirement.
  - 1. The bus shall be equipped with two red lamps at the rear of the vehicle and two red lamps at the front of the vehicle.
  - 2. In addition to the four red lamps described above, four amber lamps shall be installed so that one amber lamp is located near each red signal lamp, at the same level, but closer to the vertical centerline of the bus. The system of red and amber signal lamps shall be wired so that amber lamps are energized manually. The red lamps are automatically energized and amber lamps are

automatically de-energized when stop signal arms are extended or when the bus entrance door is opened.

The above mentioned activation sequence can be accomplished with either a “sequential operation” or a “non-sequential operation” warning lamp system. While each of the systems can be configured to include components such as a master switch, amber activation switch, interrupt switch, etc., the presence (or absence) of these components does not affect the classification of the system as either *sequential* or *non-sequential*. Both *sequential* and *non-sequential* systems can be configured with a multitude of switch combinations to provide a unique system meeting specific user requirements. An amber pilot lamp and a red pilot lamp shall be installed adjacent to the driver controls for the flashing signal lamp to indicate to the driver which lamp system is activated.

3. For background color requirements, refer to appropriate state specification requirements.
4. Red lamps shall flash at any time the stop signal arm is extended.
5. All flashers for alternately flashing red and amber signal lamps shall be enclosed in the body in a readily accessible location.

D. Turn signal and stop/tail lamps

1. The bus body shall be equipped with amber rear turn signal lamps that are at least seven inches in diameter or, if a shape other than round, a minimum 38 square inches of illuminated area and shall meet FMVSS No. 108, *Lamps, Reflective Devices, and Associated Equipment*. These signal lamps must be connected to the chassis hazard warning switch to cause simultaneous flashing of turn signal lamps when needed as a vehicular traffic hazard warning. Turn signal lamps are to be placed as wide apart as practical and their horizontal centerline shall be a maximum of 12 inches below the rear window.
2. Buses shall be equipped with amber side-mounted turn signal lamps. The turn signal lamp on the left side shall be mounted rearward of the stop signal arm and the turn signal lamp on the right side shall be mounted rearward of the entrance door.
3. Buses shall be equipped with four combination red stop/tail lamps.
  - a. Two combination lamps with a minimum diameter of seven inches, or if a shape other than round, a minimum 38 square inches of



illuminated area shall be mounted on the rear of the bus just inside the turn signal lamps

- b. Two combination lamps with a minimum diameter of four inches, or if a shape other than round, a minimum of 12 square inches of illuminated area, shall be placed on the rear of the body between the beltline and the floor line. The rear license plate lamp may be combined with one lower tail lamp. Stop lamps shall be activated by the service brakes and shall emit a steady light when illuminated.
- E. On buses equipped with a monitor for the front and rear lamps of the school bus, the monitor shall be mounted in full view of the driver. If the full circuit current passes through the monitor, each circuit shall be protected against any short circuit or intermittent shorts by a fuse circuit breaker, or electronic protection device.
- F. An optional white flashing strobe lamp may be installed on the roof of a school bus at a location not closer than 12 inches or more than 6 feet from the rear of the roof edge. However, if the bus is equipped with a roof hatch or other roof mounted equipment falling within the above mentioned measurements, the strobe lamp may be located directly behind that equipment. The lamp shall have a single clear lens emitting light 360 degrees around its vertical axis, meeting the requirements of SAE J845. It may not extend above the roof more than the maximum legal height. A manual switch and a pilot lamp shall be included to indicate when the lamp is in operation. Optionally, the strobe lamp may be wired to activate with the amber alternately flashing signal lamps, continuing through the full loading or unloading cycle, and may be equipped with an override switch to allow activation of the strobe at any time for use in inclement weather.  
**Note: Strobe light is required by Kansas Law on any bus manufactured after July 1, 2007. (KSA 8-1730)**
- G. The bus body shall be equipped with two white rear backup lamps that are at least four inches in diameter or, if a shape other than round, a minimum of 12 square inches of illuminated area, and shall meet FMVSS No. 108. If backup lamps are placed on the same horizontal line as the brake lamps and turn signal lamps, they shall be to the inside.
- H. A daytime running lamps (DRL) system shall be provided.

## **METAL TREATMENT**

- A. All metal except high-grade stainless steel or aluminum used in construction of the bus body shall be zinc-coated or aluminum-coated or treated to prevent corrosion. This includes but is not limited to such items as structural members, inside and outside panels, door panels and floor sills. Excluded are such items as door handles, grab handles, interior decorative parts and other interior plated parts.

- B. All metal parts that will be painted, in addition to the above requirements, shall be chemically cleaned, etched, zinc phosphate-coated and zinc chromate- or epoxy-primed to improve paint adhesion. This includes, but is not limited to, such items as crossing control arm and stop arm.
- C. In providing for these requirements, particular attention shall be given to lapped surfaces, welded connections of structural members, cut edges on punched or drilled hole areas in sheet metal, closed or box sections, unvented or undrained areas and surfaces subjected to abrasion during vehicle operation.
- D. As evidence that the above requirements have been met, samples of materials and sections used in the construction of the bus body shall be subjected to a cyclic corrosion testing as outlined in SAE J1563.

## **MIRRORS**

- A. The interior glass mirror shall be either laminated or tempered and shall have rounded corners and protected edges. Mirrors shall be 6x16 inches minimum for Type A buses and be 6x30 inches minimum for Types C and D buses.
- B. Each school bus shall be equipped with exterior mirrors meeting the requirements of FMVSS No. 111, *Rearview Mirrors*. The right side rear view mirror shall not be obscured by the unwiped portion of the windshield. Mirrors shall be easily adjustable, but shall be rigidly braced, so as to reduce vibration.
- C. Heated external mirrors may be used.
- D. Remote controlled external rear view mirrors may be used.

## **MOUNTING**

- A. The rear body cross member shall be supported by the chassis frame. Except where chassis components interfere, the bus body shall be attached to the chassis frame at each main floor sill in such a manner as to prevent shifting or separation of the body from the chassis under severe operating conditions.
- B. Isolators shall be installed at all contact points between the body and the chassis frame on Types A-2, B, C and D buses, and shall be secured by a positive means to the chassis frame or body to prevent shifting, separation, or displacement of the isolators under severe operating conditions.

## **OIL FILTER**

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.

## **OPENINGS**

All openings in the floorboard or firewall between the chassis and the passenger compartment (e.g., for gearshift selector and parking brakes lever) shall be sealed.

## **OVERALL LENGTH**

Overall length of the bus shall not exceed 45 feet, excluding accessories.

## **OVERALL WIDTH**

Overall width of bus shall not exceed 102 inches, excluding accessories.

## **PASSENGER LOAD**

- A. Actual gross vehicle weight (GVW) is the sum of the chassis weight plus the body weight, plus the driver's weight, plus total seated student weight. For purposes of calculation, the driver's weight is 150 pounds and the student weight is 120 pounds per student.
- 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).

## **PUBLIC ADDRESS SYSTEM**

- A. Buses may be equipped with an AM/FM/audio and/or public address system having interior and exterior speakers.
- B. No internal speakers, other than the driver's communication systems, may be installed within four feet of the driver's seat back in its rearmost upright position.

## **RETARDER SYSTEM (OPTIONAL EQUIPMENT)**

A retarder system, if used, shall limit the speed of a fully loaded school bus to 19.0 mph on a 7% grade for 3.6 miles.

## **RETROREFLECTIVE MATERIAL**

(See also APPENDICES A and B, Retroreflective Sheeting.)

- A. The front and/or rear bumper may be marked diagonally 45 degrees down toward

the centerline of the pavement with two  $\pm \frac{1}{4}$  inch-wide strips of non-contrasting retroreflective material.

- B. The rear of the bus body shall be marked with strips of retroreflective NSBY material to outline the perimeter of the back of the bus using material which conforms with the requirements of FMVSS No. 131, *School Bus Pedestrian Safety Devices*, Table 1. The perimeter marking of rear emergency exits per FMVSS No. 217, *Bus Emergency Exits and Window Retention and Release*, and/or the use of retroreflective “SCHOOL BUS” signs partially accomplishes the objective of this requirement. To complete the perimeter marking of the back of the bus, strips of retroreflective NSBY material, a minimum of 1 inch and a maximum of 2 inches in width 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. Multifunction school activity buses (MFSABs) shall be exempt from these color requirements.
- C. “SCHOOL BUS” signs, if not a lighted design, shall be marked with retroreflective NSBY material comprising background for lettering of the front and/or rear “SCHOOL BUS” signs.
- D. Sides of the bus body shall be marked with at least  $1 \frac{3}{4}$  inch retroreflective NSBY material, extending the length of the bus body and located (vertically) between the floor line and the beltline.
- E. If used, signs placed on the rear of the bus relating to school bus flashing signal lamps or railroad stop procedures may be retroreflective material, as specified by each state.

## **ROAD SPEED CONTROL**

When it is desired to accurately control vehicle maximum speed, a vehicle speed limiter may be utilized.

## **RUB RAILS**

- A. There shall be one rub rail on each side of the bus located at, or no more than eight inches above, the seat cushion level. They shall extend from the rear side of the entrance door completely around the bus body (except at the emergency door or any maintenance access door) to the point of curvature near the outside cowl on the left side.
- B. There shall be one additional rub rail on each side located 10 inches or less above the floor line. The rub rail shall cover the same longitudinal span as the upper rub rail,

except at the wheel housing, and it shall extend only to the longitudinal tangent of the right and left rear corners.

- C. Rub rails above the floor line 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 its finished form and shall be constructed of 16-gauge metal or other material of equivalent strength suitable to help protect body side panels from damage. Rub rails shall be constructed in corrugated or ribbed fashion.
- E. Rub rails shall be applied outside the body or outside the 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 buses containing the rear luggage or the rear engine compartment, rub rails need not extend around the rear corners.
- F. The bottom edge of the body side skirts shall be stiffened by application of a rub rail, or the edge may be stiffened by providing a flange or other stiffeners.

## **SEATS AND RESTRAINING BARRIERS**

- A. Passenger Seating
  - 1. School bus design capacities shall be in accordance with 49 CFR, Part 571.3, *Definitions*, and FMVSS No. 222, *School Bus Passenger Seating and Crash Protection*.
  - 2. All seats shall have a minimum cushion depth of 15 inches, a seat back height of 24 inches above the seating reference point, and must comply with all other requirements of FMVSS No. 222.
  - 3. All restraining barriers and passenger seats shall be constructed with materials that enable them to meet the criteria of the *School Bus Seat Upholstery Fire Block Test*.
  - 4. Each seat leg shall be secured to the floor by bolts, washers and nuts in order to meet the performance requirements of FMVSS No. 222. Flange-head nuts may be used in lieu of nuts and washers. All seat frames attached to the seat rail shall be fastened with two or more bolts, washers and nuts, or with flange-head nuts. Seats may be track-mounted in conformance with FMVSS No. 222.
  - 5. If track seating is installed, the manufacturer shall supply minimum and maximum seat spacing dimensions (applicable to the bus) which comply with

FMVSS No. 222. This information shall be on a label permanently affixed to the bus.

6. All school buses (including Type A) shall be equipped with restraining barriers which conform to FMVSS No. 222.
7. A flip-up seat may be installed at any side emergency door. If provided, the flip-up seat shall conform to FMVSS No. 222 and aisle clearance requirements of FMVSS No. 217, *Bus Emergency Exits and Window Retention and Release*. The flip-up seat shall be free of sharp projections on the underside of the seat bottom. The underside of the flip-up seat bottoms shall be padded or contoured to reduce the possibility of clothing being snagged. Flip-up seats shall be constructed to prevent passenger limbs from becoming entrapped between the seat back and the seat cushion when the seat is in the upright position. The seat cushion shall be designed to rise to a vertical position automatically when it is not occupied.
8. Lap belts shall not be installed on passenger seats in large school buses (over 10,000 pounds GVWR) except in conjunction with child safety restraint systems that comply with the requirements of FMVSS No. 213, *Child Restraint Systems*.

**B. Pre-School Age Seating**

Passenger seats designed to accommodate a child or infant carrier seat shall comply with FMVSS No. 225, *Child Restraint Anchorage Systems*. These seats shall be in compliance with NHTSA's "Guideline for the Safe Transportation of Pre-school Age Children in School Buses."

**Note:** See A.8, above.

**C. Driver Seat**

1. The driver's seat supplied by the body manufacturer shall be a high back seat. The seat back shall be adjustable to 15 degrees minimum, without requiring the use of tools. The seat shall be equipped with a head restraint to accommodate a 5th percentile female to a 95th percentile adult male, as defined in FMVSS No. 208, *Occupant Crash Protection*.
2. Type A buses may utilize the standard driver's seat provided by the chassis manufacturer.

**D. Driver Restraint System**

A Type 2 lap/shoulder belt shall be provided for the driver. On buses where the driver's seat and upper anchorage for the shoulder belt are both attached to the body structure, a driver's seat with an integrated Type 2 lap/shoulder belt may be substituted. On buses where the driver's seat and upper anchorage for the shoulder belt are separately attached to both body and chassis structures (i.e., one attached to the chassis and the other attached to the body), a driver's seat with an integrated Type 2 lap/shoulder belt should be used.

The assembly shall be equipped with an emergency locking retractor for the continuous belt system. On all buses except Type A that are equipped with a standard chassis manufacturer's driver's seat, the lap portion of the belt system shall be guided or anchored to prevent the driver from sliding sideways under the belt system. The lap/shoulder belt shall be designed to allow for easy adjustment in order to fit properly and to effectively protect drivers varying in size from 5th percentile adult female to 95th percentile adult male. The belt may be of a high visibility contrasting color.

- E. 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 webbing cutter shall be mounted in a location accessible to the seated driver in an easily detachable manner.

## **SHOCK ABSORBERS**

The bus shall be equipped with double-action shock absorbers compatible with the manufacturer's rated axle capacity at each wheel location.

## **SIDE SKIRTS**

School bus body side skirts between the front and rear axles shall extend down to within two inches plus or minus, of the horizontal line from the center of the front spindle to the center of the rear axle. The manufacturer may offer optional side skirt lengths that extend lower than this requirement. This measurement shall apply to a new unloaded school bus located on a flat, level surface.

## **STEERING GEAR**

- A. The steering gear shall be approved by the chassis manufacturer and designed to ensure safe and accurate performance when the vehicle is operated with maximum load and at maximum speed.
- B. If external adjustments are required, the steering mechanism shall be accessible to make adjustments.



- C. Changes shall not be made to the steering apparatus which are not approved by the chassis manufacturer.
- D. There shall be a clearance of at least two inches between the steering wheel and cowl, instrument panel, windshield or any other surface.
- E. Power steering is required and shall be of the integral type with integral valves.
- F. The steering system shall be designed to provide a means for lubrication of all wear-points that are not permanently lubricated.

## STEPS

- A. The first step at the entrance door shall be not less than 10 inches and not more than 14 inches from the ground when measured from the top surface of the step to the ground, based on standard chassis specifications, except that on Type D vehicles, the first step at the entrance door shall be 12 inches to 16 inches from the ground. An auxiliary step may be provided to compensate for the increase in ground-to-first-step clearance. The auxiliary step is not required to be enclosed.

- B. Step risers shall not exceed a height of 10 inches.

**Note:** When plywood is used on a steel floor or step, the riser height may be increased by the thickness of the plywood.

- C. Steps shall be enclosed to prevent accumulation of ice and snow.
- D. Steps shall not protrude beyond the side body line.

## STEP TREADS

- A. 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.
- B. The step covering shall be permanently bonded to a durable backing material that is resistant to corrosion.
- C. 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*.
- D. Step treads shall have the following characteristics:
  - 1. Abrasion resistance: Step tread material weight loss shall not exceed 0.40 percent, as tested under ASTM D-4060, *Standard Test Method for Abrasion*

*Resistance of Organic Coatings by the Taber Abraser, (CS-17 Wheel, 1000 gram, 1000 cycle).*

2. Weathering resistance: Step treads shall not break, crack, or check after ozone exposure (seven days at 50 pphm at 40 degrees C) and Weatherometer exposure (ASTM D-750, *Standard Test Method for Rubber Deterioration in Carbon-Arc Weathering Apparatus*, seven days).
3. Flame resistance: Step treads shall have a calculated burn rate of .01 mm per minute or less using the test methods, procedures and formulas listed in FMVSS No. 302, *Flammability of Interior Materials*.

Note: A spray on application type material may be used in lieu of item A. that meets the requirements of items B. through D. The material shall be applied not only to the interior surfaces of the service door step treads but also to the exterior, if not covered by undercoating.

## **STIRRUP STEPS**

If the windshield and lamps are not easily accessible from the ground, there may be at least one 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.

## **STOP SIGNAL ARM**

The stop signal arm(s) shall comply with the requirements of FMVSS No. 131, *School Bus Pedestrian Safety Devices*. MFSABs are exempt from these requirements.

## **STORAGE COMPARTMENT (OPTIONAL)**

A storage container for tools, tire chains and/or other equipment may be located either inside or outside the passenger compartment. If inside, it shall be fastened to the floor and have a cover with a positive fastening device.

## **SUN SHIELD**

- A. On Types B, C and D vehicles, an interior adjustable transparent sun shield, with a finished edge and dimensions not less than 6x30 inches, shall be installed in a position convenient for use by the driver.
- B. On Type A buses, the sun shield (visor) shall be installed by the chassis manufacturer.

## SUSPENSION SYSTEMS

- A. The capacity of springs or suspension assemblies shall be commensurate with the chassis manufacturer's GVWR.
- B. Rear leaf springs shall be of a progressive rate or multi-stage design. Front leaf springs shall have a stationary eye at one end and shall be protected by a wrapped leaf, in addition to the main leaf.

## THROTTLE

The force required to operate the throttle shall not exceed 16 pounds throughout the full range of accelerator pedal travel.

## TIRES AND RIMS

- A. Rims and tires of the proper size and load rating commensurate with the chassis manufacturer's GVWR shall be provided. The use of multi-piece rims and/or tube-type tires shall not be permitted on any school bus ordered after December 31, 1995.
- B. Dual rear tires shall be provided on Type A-2, Type B, Type C and Type D school buses.
- C. All tires on a vehicle shall be of the same size, and the load range of the tires shall meet or exceed the GVWR, as required by FMVSS No. 120, *Tire Selection and Rims for Vehicles other than Passenger Car*.
- D. If the vehicle is equipped with a spare tire and rim assembly, it shall be the same size as those mounted on the vehicle.
- E. If a tire carrier is required, it shall be suitably mounted in an accessible location outside of the passenger compartment.

## TOWING ATTACHMENT POINTS

Front and/or 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.

- A. Towing devices shall be attached to the chassis frame either by the chassis manufacturer or in accordance with the chassis manufacturer's specifications.
- B. Each towing device shall have a strength rating of 13,500 pounds each, for a combined rating of 27,000 pounds with the force applied in the rearward direction, parallel to the ground, and parallel to the longitudinal axis of the chassis frame rail. For pulling and lifting purposes, tow hooks are meant to be used simultaneously. For

pulling, angularity applied to the tow hooks will decrease the capacities of the tow hooks.

- C. The towing devices shall be mounted such that they do not project forward of the front bumper or rearward of the rear bumper.

**Note:** Type A buses are exempt from the requirement for front tow hooks or eyes due to built-in crush zones.

## **TRACTION ASSISTING DEVICES (OPTIONAL)**

- A. Where required or used, sanders shall:
  - 1. Be hopper cartridge-valve type;
  - 2. Have a metal hopper with all interior surfaces treated to prevent condensation of moisture;
  - 3. Have at least 100 pounds (grit) capacity;
  - 4. Have a cover that screws in place on the filler opening of the hopper, thereby sealing the unit airtight;
  - 5. Have discharge tubes extending under the fender wheelhousing to the front of each rear wheel;
  - 6. Have non-clogging discharge tubes with slush-proof, non-freezing rubber nozzles;
  - 7. Be operated by an electric switch with a pilot lamp mounted on the instrument panel located so as to be exclusively controlled by the driver;
  - 8. Be equipped with a gauge to indicate that the hopper has reached the one-quarter level (and needs to be refilled); and
  - 9. Be designed to prevent freezing of all activation components and moving parts.
- B. Automatic traction chains may be installed.

## **TRANSMISSION**

- A. Automatic transmissions shall have no fewer than three forward speeds and one reverse speed. Mechanical shift selectors shall provide a detent between each gear position when the gear selector quadrant and shift selector are not steering-column mounted.

- B. Automatic transmissions shall have a transmission shifter interlock controlled by the application of the service brake to prohibit accidental engagement of the transmission.

## **TRASH CONTAINER AND HOLDING DEVICE (OPTIONAL)**

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 installed in an accessible location in the driver's compartment, not obstructing passenger access to the entrance door.

## **TURNING RADIUS**

- A. A chassis with a wheelbase 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. A chassis with a wheelbase of 265 inches or more shall have a right and left turning radius of not more than 44 ½ feet, curb-to-curb measurement.

## **UNDERCOATING**

- A. The entire underside of the bus body, including floor sections, cross member and below floor-line side panels, shall be coated with rust-proofing material for which the material manufacturer has issued to the bus body manufacturer a notarized certification to the bus body manufacturer that materials meet or exceed all performance requirements of SAE J1959, Sept. 2003 Edition of the Standard.
- B. The undercoating material shall be applied with suitable airless or conventional spray equipment to the undercoating material manufacturer recommended film thickness and shall show no evidence of voids in the cured film.
- C. The undercoating material shall not cover any exhaust components of the chassis.

## **VENTILATION**

- A. Auxiliary Fan(s) shall meet the following requirements:
- B. Fan(s) shall be placed in a location where they can be adjusted for maximum effectiveness and where they do not obstruct the driver's vision to the mirrors or interfere with the safe operation of the vehicle.
  - 1. Fans shall have six-inch (nominal) diameter.
  - 2. Fan blades shall be enclosed in a protective cage. Each fan shall be controlled by a separate switch.

- C. The bus body shall be equipped with a suitably controlled ventilating system with capacity sufficient to maintain the proper quantity of air flow under operating conditions without having to open a window except in extremely warm weather.
- D. Static-type, non-closeable exhaust ventilation shall be installed in a low-pressure area of the roof.
- E. Roof hatches designed to provide ventilation in all types of exterior weather conditions may be provided.

## **WHEELHOUSING**

- A. The wheelhousing opening shall allow for easy tire removal and service.
- B. Wheel housings shall be attached to the floor panels in a manner to prevent any dust, water or fumes from entering the body. Wheel housings shall be constructed of 16-gauge (or thicker) steel.
- C. The inside height of the wheel housings above the floor line shall not exceed 12 inches.
- D. The wheel housings shall provide clearance for installation and use of tire chains on single or dual (if so equipped) power-driving wheels.
- E. No part of a raised wheelhousing shall extend into the emergency door opening.

## **WINDOWS**

- A. Other than emergency exits designated to comply with FMVSS No. 217, *Bus Emergency Exits and Window Retention and Release*, each side window shall provide an unobstructed opening of at least nine inches high (but not more than 13 inches high) and at least 22 inches wide, obtained by lowering the window. One window on each side of the bus may be less than 22 inches wide.
- B. Optional tinted and/or frost-free glazing may be installed in all doors or windows.
- C. Windshields shall comply with federal, state and local regulations.

## **WINDSHIELD WASHERS**

A windshield washer system shall be provided.

## WINDSHIELD WIPERS

- A. A two-speed or variable speed windshield wiping system, with an intermittent feature, shall be provided and shall be operated by a single switch.
- B. The wipers shall meet the requirements of FMVSS No. 104, *Windshield Wiping and Washing Systems*.



# **SPECIALLY EQUIPPED SCHOOL BUS SPECIFICATIONS**

## **SPECIALLY EQUIPPED SCHOOL BUS SPECIFICATIONS**

### **INTRODUCTION**

The specifications in this section are intended to supplement specifications in the BODY AND CHASSIS section. In general, specially equipped buses shall meet all the requirements of the preceding sections, plus those listed in this section. It is recognized that the field of special transportation is characterized by varied needs for individual cases and by rapidly emerging technologies for meeting individual student needs. A flexible, “common sense” approach to the adoption and enforcement of specifications for these vehicles, therefore, is prudent.

### **DEFINITION**

*A specially equipped school bus is any school bus that is designed, equipped and/or modified to accommodate students with special transportation needs.*

### **GENERAL REQUIREMENTS**

- A. Specially equipped school buses shall comply with the *National School Transportation Specifications and Procedures* and with the Federal Motor Vehicle Safety Standards (FMVSSs) applicable to their Gross Vehicle Weight Rating (GVWR) category.
- B. Any school bus to be used for the transportation of children who utilize a wheelchair or other mobile positioning device, or who require life-support equipment that prohibits use of the regular service entrance, shall be equipped with a power lift.

### **AISLES**

All school buses equipped with a power lift shall provide a minimum 30-inch pathway leading from any wheelchair position to at least one 30 inches wide emergency exit door. A wheelchair securement position shall never be located directly in front of (blocking) a power lift door location.

### **GLAZING**

Tinted glazing may be installed in all doors, windows and windshields consistent with federal, state and local regulations.

### **IDENTIFICATION**

Specially equipped school buses shall display the International Symbol of Accessibility below the window line. Such emblems shall be white on blue or black background, shall not exceed 12 inches square in size and shall be of a high-intensity retroreflective material meeting the requirements of Federal Highway Administration (FHWA) FP-85, *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects*.

## PASSENGER CAPACITY RATING

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.

## POWER LIFTS

- A. The power lift shall be located on the right side of the bus body.

**Note:** The lift may be located on the left side of the bus if, and only if, the bus is used to deliver students only to the left side of one-way streets.

- B. Vehicle lift and installation

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*.

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.

Lift capacity: The lifting mechanism and platform shall be capable of operating effectively with a wheelchair and occupant mass of at least 800 pounds.

Controls: (See 49 CFR 571.403, S6.7, *Control systems*.)

Emergency operations: (See 49 CFR 571.403, S6.9, *Backup operation*.)

Power or equipment failures: (See 49 CFR 571.403, S6.2.2, *Maximum platform velocity*.)

Platform barriers: (See 49 CFR 571.403, S6.4.7, *Wheelchair retention*.)

Platform surface: (See 49 CFR 571.403, S6.4.2, S6.4.3, *Platform requirements*.) (See also “Wheelchair or Mobility Aid Envelope” figure at the end of this subsection.)

Platform gaps and entrance ramps: (See 49 CFR 571.403, S6.4.4, *Gaps, transitions and openings*.)

Platform deflection: (See 49 CFR 571.403, S6.4.5, *Platform deflection*.)

Platform movement: (See 49 CFR 571.403, S6.2.3, *Maximum platform acceleration*.)

**Boarding direction:** The lift shall permit both inboard and outboard facing of wheelchair and mobility aid users.

**Handrails:** (See 49 CFR 571.403, S6.4.9, *Handrails.*)

**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.

**Excessive pressure:** (See 49 CFR 571.403, S6.8, *Jacking prevention.*)

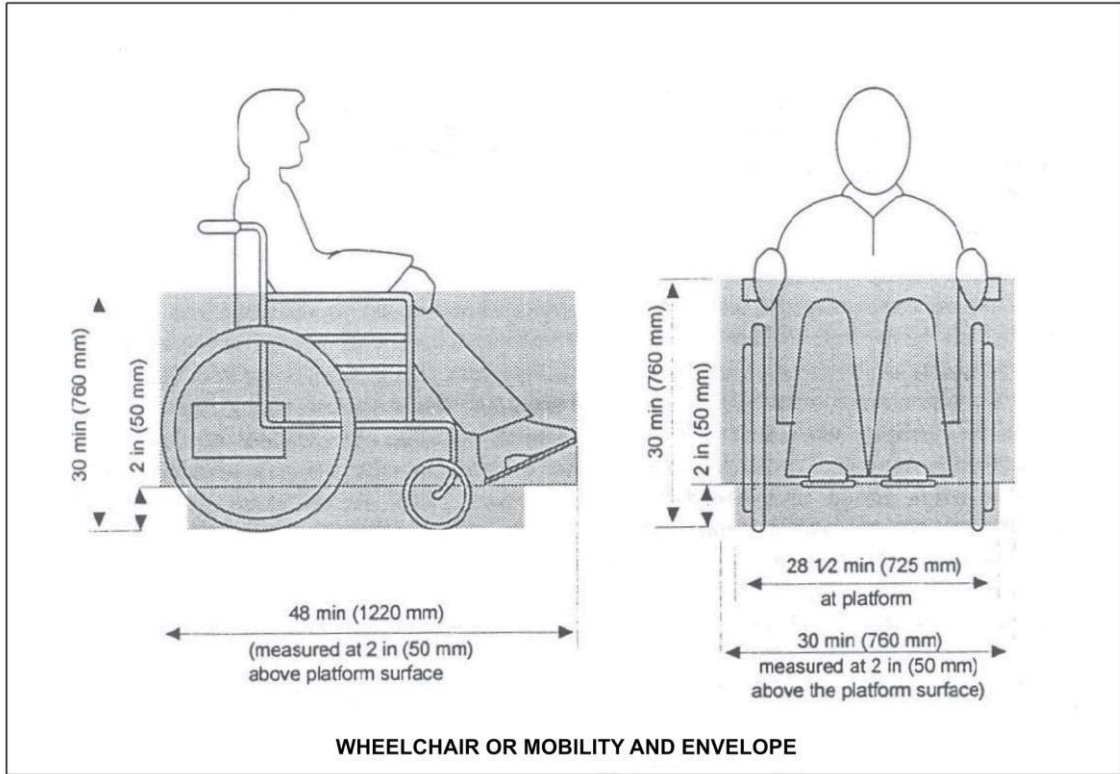
**Documentation:** The following information shall be provided with each vehicle equipped with a lift:

A phone number where information can be obtained about installation, repair and parts. (Detailed written instructions and a parts list shall be available upon request.)

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 positioning of wheelchair/mobility aids on the lift.

**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.

**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*.



## REGULAR SERVICE ENTRANCE

- A. On power lift-equipped vehicles, steps shall be the full width of the step well, excluding the thickness of the doors in the open position.
- B. In addition to the handrail required in the BUS BODY AND CHASSIS section, an additional handrail may be provided on all specially equipped school buses. This handrail shall be located on the opposite side of the entrance door from the handrail required in the BUS BODY AND CHASSIS section and shall meet the same requirements for handrails.

## RESTRAINING DEVICES

- A. On power lift-equipped school buses with a GVWR of 10,000 pounds or more, seat frames may be equipped with attachment points to which belt assemblies can be attached for use with child safety restraint systems (CSRSs) that comply with FMVSS No. 213, *Child Restraint Systems*. Any belt assembly anchorage shall comply with FMVSS No. 210, *Seat Belt Assembly Anchorages*.
- B. Alternatively, a child restraint anchorage system that complies with FMVSS No. 225, *Child Restraint Anchorage Systems*, may be installed.
- C. Seat belt assemblies, if installed, shall conform to FMVSS No. 209, *Seat Belt Assemblies*.

- D. Child safety restraint systems, which are used to facilitate the transportation of children who in other modes of transportation would be required to use a child, infant or booster seat, shall conform to FMVSS No. 213.

## **SEATING ARRANGEMENTS**

Flexibility in seat spacing to accommodate special devices shall be permitted to meet passenger requirements. All seating shall meet the requirements of FMVSS No. 222, *School Bus Passenger Seating and Crash Protection*.

## **SECUREMENT AND RESTRAINT SYSTEM FOR WHEELCHAIRS AND WHEELCHAIR-SEATED OCCUPANTS**

For purposes of understanding the various aspects and components of this section, the terms *securement* and *tie down* and the phrases *securement system* or *tie down system* are used exclusively in reference to the devices that anchor the wheelchair to the vehicle. The term *restraint* and the phrase *restraint system* are used exclusively in reference to the equipment that is intended to limit the movement of the wheelchair occupant in a crash or sudden maneuver. The term *wheelchair tie down and occupant restraint system (WTORS)* is used to refer to the total system that secures the wheelchair and restrains the wheelchair occupant.

- A. **WTORS** — general requirements:
  - 1. A wheelchair tie down and occupant restraint system installed in specially equipped school buses shall be designed, installed, and operated for use with forward-facing wheelchair-seated passengers and shall comply with all applicable requirements of FMVSS 222, *School Bus Passenger Seating and Crash Protection*, and SAE J2249, *Wheelchair Tie down and Occupant Restraint Systems for Use in Motor Vehicles*.
  - 2. The WTORS, including the anchorage track, floor plates, pockets or other anchorages, shall be provided by the same manufacturer or shall be certified to be compatible by manufacturers of all equipment/systems used.
  - 3. Wheelchair securement positions shall be located such that wheelchairs and their occupants do not block access to the lift door.
  - 4. A device for storage of the WTORS shall be provided. When the system is not in use, the storage device shall allow for clean storage of the system, shall keep the system securely contained within the passenger compartment, shall provide reasonable protection from vandalism and shall enable the system to be readily accessed for use.
  - 5. The WTORS, including the storage device, shall meet the flammability standards established in FMVSS No. 302, *Flammability of Interior Materials*.

6. The following information shall be provided with each vehicle equipped with a securement and restraint system:
    - a. A phone number where information can be obtained about installation, repair and parts. (Detailed written instructions and a parts list shall be available upon request.)
    - b. Detailed instructions regarding use, including a diagram showing the proper placement of the wheelchair/mobility aids and positioning of securement devices and occupant restraints, including correct belt angles.
  7. The WTORS manufacturer shall make training materials available to ensure the proper use and maintenance of the WTORS. These may include instructional videos, classroom curriculum, system test results or other related materials.
- B. Wheelchair Securement/Tiedown: (See 49 CFR 571.222, S5.4.1, S5.4.2.) Each wheelchair position in a specially equipped school bus shall have a minimum clear floor area of 30 inches laterally by 48 inches longitudinally. Additional floor area may be required for some wheelchairs. Consultation between the user and the manufacturer is recommended to ensure that adequate area is provided.
- C. Occupant restraint system: (See 49 CFR 571.222, S5.4.3, S5.4.4.) If the upper torso belt anchorage is higher than 44 inches measured from the vehicle floor, an adjustment device, as part of the occupant restraint system, shall be supplied.

## **SPECIAL LIGHT**

Doorways in which lifts are installed shall be equipped with a special light that provides a minimum of two foot-candles of illumination measured on the floor of the bus immediately adjacent to the lift during lift operation.

## **SPECIAL SERVICE ENTRANCE**

- A. Power lift-equipped bodies shall have a special service entrance to accommodate the power lift.

**Note:** A special service entrance shall not be required if the lift is designed to operate within the regular service entrance, is capable of stowing such that the regular service entrance is not blocked in any way and a person entering or exiting the bus is not impeded in any way.

- B. The special service entrance and door shall be located on the right side of the bus and shall be designed so as not to obstruct the regular service entrance.



**Note:** A special service entrance and door may be located on the left side of the bus only if the bus is used only to deliver students to the left side of one-way streets and its use is limited to that function.

- C. The opening may extend below the floor through the bottom of the body skirt. If such an opening is used, reinforcements shall be installed at the front and rear of the floor opening to support the floor and give the same strength as other floor openings.
- D. A drip molding shall be installed above the special service entrance to effectively divert water from the entrance.
- E. Door posts and headers at the special service entrance shall be reinforced sufficiently to provide support and strength equivalent to the areas of the side of the bus not used for the special service entrance.

## **SPECIAL SERVICE ENTRANCE DOORS**

- A. A single door or double doors may be used for the special service entrance.
- B. A single door shall be hinged to the forward side of the entrance unless this would obstruct the regular service entrance. If the door is hinged to the rearward side of the doorway, the door shall utilize a safety mechanism that will prevent the door from swinging open should the primary door latch fail. If double doors are used, the system shall be designed to prevent the door(s) from being blown open by the aerodynamic forces created by the forward motion of the bus, and/or shall incorporate a safety mechanism to provide secondary protection should the primary latching mechanism(s) fail.
- C. All doors shall have positive fastening devices to hold doors in the “open” position when the special service entrance is in use.
- D. All doors shall be weather sealed.
- E. When manually operated 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 one-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. The door and hinge mechanism shall have strength that is greater than, or equivalent to, the strength of the emergency exit door.
- F. Door materials, panels and structural components shall have strength 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 that are visually similar in size and location to adjacent non-door windows. Glazing shall be of the same type and tinting (if applicable) as standard fixed glass in other body locations.
- H. Door(s) shall be equipped with a device that will actuate an audible or visible signal located in the driver's compartment when the door(s) is not securely closed and the ignition is in the "on" position.
- I. A switch shall be installed so that the lift mechanism will not operate when the lift platform door(s) is closed.
- J. Special service entrance doors shall be equipped with padding at the top edge of the door opening. The padding shall be at least three inches wide and one inch thick and shall extend the full width of the door opening.

## **SUPPORT EQUIPMENT AND ACCESSORIES**

- A. In addition to the webbing cutter required in the BUS BODY AND CHASSIS section, each specially equipped school bus that is set up to accommodate wheelchairs or other assistive or restraint devices with webbing attached shall contain an additional webbing cutter properly secured in a location to be determined by the purchaser. The webbing cutter shall meet the requirements listed in the BUS BODY AND CHASSIS section, seats and Restraining Barriers, paragraph E.
- B. Special equipment or supplies that are used in the bus for mobility assistance, health support or safety purposes shall meet local, federal and engineering standards that may apply, including requirements for proper identification. Equipment that may be used for these purposes includes, but is not limited to:
  - 1. Wheelchairs and other mobile seating devices. (See subsection on Securement and Restraint System for Wheelchairs and Wheelchair-seated Occupants.)
  - 2. Crutches, walkers, canes and other ambulating devices to assist ambulation.
  - 3. Medical support equipment. This may include respiratory devices, such as oxygen bottles (which should be no larger than 38 cubic feet for compressed gas) or ventilators. Tanks and valves should be located and positioned to protect them from direct sunlight, bus heater vents or other heat sources. Other equipment may include intravenous and fluid drainage apparatus.
- C. Each specially equipped school bus that is set up to accommodate wheelchairs or other assistive restraint devices should be equipped with an emergency evacuation device that is certified and tested to withstand at least a 300-pound load when used

as an emergency stretcher or drag. This evacuation device shall be properly secured to the bus in a location to be determined by the purchaser.

- D. If transporting oxygen, refer to AMD Standard 003.

## **TECHNOLOGY AND EQUIPMENT, NEW**

It is the intent of these specifications to accommodate new technologies and equipment that will better facilitate the transportation of students with special needs. New technology and equipment are acceptable for use in specially equipped vehicles if:

- A. Items do not compromise the effectiveness or integrity of any major safety system. (Examples of safety systems include, but are not limited to, compartmentalization, the eight-lamp warning system, emergency exits and the approved color scheme.)
- B. Items do not diminish the safety of the bus interior.
- C. Items do not create additional risk to students who are boarding or exiting the bus or are in or near the school bus loading zone.
- D. Items do not require undue additional activity and/or responsibility for the driver.
- E. Items generally increase efficiency and/or safety of the bus, generally provide for a safer or more pleasant experience for the occupants and pedestrians in the vicinity of the bus and/or generally assist the driver and makes his/her many tasks easier to perform.

## Federal Motor Vehicle Safety Standards (FMVSS) Kansas Activity/School Buses/Passenger Vehicles

FMVSS listed below are linked to the eCFR Code of Federal Regulations website

### INDEX

49 CFR 571. 3	Definitions
49 CFR 571. 101	Controls and displays
49 CFR 571. 103	Windshield defrosting and defogging systems
49 CFR 571. 104	Windshield wiping and washing systems
49 CFR 571. 105	Hydraulic and electric brake systems
49 CFR 571. 106	Brake hoses
49 CFR 571. 108	Lamps, reflective devices, and associated equipment.
49 CFR 571. 110	Tire selection and rims for vehicles with a GVWR of 10,000 lb or less
49 CFR 571. 111	Rear visibility (mirrors)
49 CFR 571. 113	Hood latch system
49 CFR 571. 121	Air brake systems
49 CFR 571. 124	Accelerator control systems
49 CFR 571. 126	Electronic stability control systems for light vehicles
49 CFR 571. 131	School bus pedestrian safety devices (stop arm)
49 CFR 571. 136	Electronic stability control systems for heavy vehicles
49 CFR 571. 138	Tire pressure monitoring systems
49 CFR 571. 141	Minimum Sound Requirements Electric Vehicles - GVWR under 10,000 lb
49 CFR 571. 201	Occupant protection in interior impact
49 CFR 571. 205	Glazing materials
49 CFR 571. 207	Seating Systems
49 CFR 571. 208	Occupant crash protection
49 CFR 571. 209	Seat belt assemblies
49 CFR 571. 213	Child restraint systems
49 CFR 571. 214	Side impact protection
49 CFR 571. 216	Roof crush resistance – Non School Buses
49 CFR 571. 217	Bus emergency exits and window retention and release
49 CFR 571. 220	School bus rollover protection
49 CFR 571. 221	School bus body joint strength
49 CFR 571. 222	School bus passenger seating and crash protection
49 CFR 571. 225	Child restraint anchorage systems
49 CFR 571. 226	Ejection Mitigation
49 CFR 571. 301	Fuel system integrity
49 CFR 571. 305	E-vehicles: electrolyte spillage and shock protection GVWR under 10,000 lb
49 CFR 571. 401	Interior trunk release
49 CFR 571. 403	Platform lift systems for motor vehicles
49 CFR 571. 404	Platform lift installations in motor vehicles

**Note:** FMVSS not listed can be found on the Code of Federal Regulation eCFR website under Title 49 Subtitle B Chapter V Part 571

[Return to MAIN INDEX](#)

### Employer Responsibilities

- The school district, as an employer, is responsible for meeting all applicable requirements and procedures of the Federal DOT (Department of Transportation) agency regulations regarding alcohol and drug testing of any employee required to have a CDL (Commercial Driver's License)
- You are responsible for all actions of your officials, representatives, and agents (including service agents) in carrying out the requirements of the Federal DOT agency regulations
- All agreements and arrangements, written or unwritten, between and among employers and service agents concerning the implementation of DOT drug and alcohol testing requirements are deemed, as a matter of law, to require compliance with all applicable provisions of this part and DOT agency drug and alcohol testing regulations. Compliance with these provisions is a material term of all such agreements and arrangements
- **Given the complexity of the DOT's drug and alcohol testing requirements, it is strongly suggested, and recommended school districts hire a C/TPA (Consortium/Third-Party Administrator) to help manage their federally mandated CDL alcohol and drug testing program**

### Recommendations for choosing a Consortium

- School districts should look for a Consortium/Third-Party Administrator that includes and provides the following services:
  - Random Selections
  - Consulting
  - Assisting the school with a written policy on drug and alcohol use
  - Assisting the school with educational materials that explain the requirements of the FMCSRs (Federal Motor Carrier Safety Regulations) relating to drug and alcohol testing
  - 24/7 Emergency Support
  - Reasonable Suspicion Training for Supervisors
  - Testing at Certified Labs
  - Collection Site Management
  - Record keeping and Reporting Assistance
  - MRO (Medical Review Officer) Services

### Definitions:

**Consortium/Third-party administrator (C/TPA).** A service agent that provides or coordinates the provision of a variety of drug and alcohol testing services to employers. C/TPAs typically perform administrative tasks concerning the operation of the employers' drug and alcohol testing programs. This term includes, but is not limited to, groups of employers who join together to administer, as a single entity, the DOT drug and alcohol testing programs of its members. C/TPAs are not "employers" for purposes of this part

**Medical Review Officer (MRO).** A person who is a licensed physician and who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results

**Service agent.** Any person or entity, other than an employee of the employer, who provides services to employers and/or employees in connection with DOT drug and alcohol testing requirements. This includes, but is not limited to, collectors, BATs and STTs, laboratories, MROs, substance abuse professionals, and C/TPAs. To act as service agents, persons and organizations must meet DOT qualifications, if applicable. Service agents are not employers for purposes of this part

**Substance Abuse Professional (SAP).** A person who evaluates employees who have violated a DOT drug and alcohol regulation and makes recommendations concerning education, treatment, follow-up testing, and aftercare

**Limited Query** Allows an employer to determine if an individual driver's Clearinghouse record has any information about resolved or unresolved drug and alcohol program violations but does not release any specific violation information contained in the driver's Clearinghouse record. This query is required annually for all CDL employees

**Full Query** Provides an employer detailed information about any resolved or unresolved violations in a driver's Clearinghouse record. The driver's electronic consent is required in the Clearinghouse. This query is to be used as part of the pre-employment process when hiring a CDL driver

### Applicability:

- Federally mandated CDL alcohol and drug testing apply to all bus drivers, teachers, mechanics, coaches, custodians, administrators, or any other district employees, if they have a CDL and drive a school bus or activity bus
- Non-CDL holders who drive school vehicles are not required by law to be in a random drug testing pool. It is permissible for the school/contractor to have a district policy requiring the same testing. However, under federal law, you cannot place non-CDL holders in the same pool as your CDL holders

### Federal Law requires:

- School Districts/Contractors must designate an employer representative to be responsible for the testing program
- All supervisors must complete reasonable suspicion training
- School Districts/Contractors must have a written policy on drug and alcohol use and shall provide educational materials that explain the requirements of the FMCSRs relating to drug and alcohol testing
- Record retention varies from 1 year to indefinite

- School Districts/Contractors must maintain a statement signed by each employee certifying receipt of the policy and educational materials
- All records shall be maintained in a secure location with controlled access
- All school district employees requiring a CDL must be enrolled in a company random controlled substance and alcohol testing program

### **Six types of drug and alcohol testing required by federal law:**

- Pre-employment - Drivers are required to have a negative pre-employment drug test result before performing any safety-sensitive functions for the company, like driving a commercial vehicle
- Random - Random tests are unannounced and occur throughout the year. The actual selection of Drivers for random testing is to be made by a scientifically valid method by the entity doing the selections
- Post-accident - A post-accident test must be conducted when a Driver is involved in an accident that meets specific requirements (see flow chart on website)
- Reasonable suspicion - When a Driver shows signs of possibly being impaired by drugs or alcohol, a supervisor who is trained to make a reasonable-suspicion determination is to require the employee to submit to a reasonable-suspicion drug and/or alcohol test
- Return to duty - When a Driver shows signs of possibly being impaired by drugs or alcohol, a supervisor who is trained to make a reasonable-suspicion determination is to require the employee to submit to a reasonable-suspicion drug and/or alcohol test
- Follow-up - A Driver in a follow-up testing program is required to take at least six unannounced follow-up tests during the first 12-months after resuming safety-sensitive duties and may be in a follow-up testing program for up to five years

### **Drug & Alcohol Clearinghouse Information**

- Any school district who employs CDL drivers, with the CDL being a condition of their employment, shall register and set up an account with the FMCSA Drug and Alcohol Clearinghouse
- Employers need to consult with their C/TPA (Consortium/ Third Party Administrator) to find out which services they are going to provide and which ones you will be responsible for
- Annual mandated limited queries of all CDL drivers will need to be made through the clearinghouse. Even if your C/TPA does this for you, you will need to purchase the queries for the C/TPA. Queries cost \$1.25 each
- Queries can only be purchased through the clearing house which accepts credit/debit cards, Amazon Pay, PayPal and EFT from a bank account (similar to a check, requires the routing number and bank account number)
- Queries can be purchased in bundles which never expire
- A limited and a full query cost the same
- All CDL drivers shall sign a written consent form to allow employers to run limited queries through the clearing house once a year (Sample consent can be found on our website)



- The school district as an employer has a legal responsibility to report alcohol and drug violations to the clearinghouse
- All new CDL employees shall be checked with a full query through the clearinghouse for alcohol and drug violations
- All new CDL employees shall register with the clearinghouse and provide the employer with digital consent to run a full query. Digital consent only applies to a full query
- Existing CDL employees, who were hired prior to January 6, 2020, do not need to register with the clearinghouse unless they were to change jobs or have an issue arise during a limited query
- All CDL drivers shall sign a written consent form to allow employers to run mandated yearly limited queries through the clearinghouse
- All CDL employees will need to give written consent for you to run the mandated annual limited queries
- You can find a list of Frequently Asked Questions on the FMCSA website
- <https://clearinghouse.fmcsa.dot.gov/>
- FMCSA advises to use caution regarding solicitations from vendors offering to register employers with the clearinghouse. Federal law requires employers (school district) to do their own registering. The law does not allow someone else to do this for you
- Step by step registering instructions for the clearinghouse, for both school districts and drivers, can be found on our website
- The Clearinghouse will allow for the batch uploading of driver queries by preparing a tab-delimited file and uploading that file into the Clearinghouse for processing follow this link <https://clearinghouse.fmcsa.dot.gov/Resource/Index/Bulk-Upload-Template>
- If the employee or prospective employee has failed an alcohol and/or drug test AT ANY TIME in the past, the individual is not eligible to drive a school bus until they complete a SAP (Substance Abuse Program) and return-to-duty requirements in 49 CFR Part 40

<b>Accident Prevention Course</b>	Documentation showing driver has current approved accident prevention course in past 3 years. Documentation shall be kept for the duration of the driver's employment plus 2 years. (Approved Courses: AAA Driver Improvement Program, National Safety Council, Hartford 3-D, Smith System & AARP). <b>NO ON-LINE COURSES ACCEPTED</b> KAR 91-38-6
<b>Annual Inspections</b>	Shall be considered a Maintenance Records and be kept for as long as the school owns or leases the vehicle, and for at least 2 years after. KAR 91-38-5
<b>BTW (Behind The Wheel) Driver Training</b>	Minimum of 12 hours of supervised bus driver training. The first six hours of training shall be completed without student passengers, but the remaining hours may be completed with student passengers if the driver-trainer is on the bus does not have a CLP (Commercial Learners Permit). BTW is required for non-CDL buses. Documentation shall be kept for the duration of the driver's employment plus 2 years. Note: A CLP holder is prohibited from operating a school bus with students on board under Federal Law 49 CFR 383.25 KAR 91-38-6
<b>Driver's License</b>	Photocopy of current license. A Commercial class A or B, driver's license is required for vehicles with a gross weight rating of more than 26,001 pounds and/or rated for passenger capacity of 16 or more including the driver. A Commercial class A, B, or C driver's license is required for vehicles with a gross weight rating of less than 26,000 pounds and/or rated for passenger capacity of 16 or more including the driver. All commercial licenses must have a "P" and "S" endorsement. Drivers of passenger vehicles and buses rated less than 26,000 pounds, for fewer than 16 passengers including the driver must maintain an appropriate non-commercial operator's license.
<b>Drug &amp; Alcohol Records</b>	Record retention varies from 1 year to indefinite. All records shall be maintained in a secure location with controlled access. Records include but not limited to: FMCSA Clearinghouse Written Consent for Limited Queries, Receipt of District's Drug & Alcohol Policy & Educational Materials, Supervisors Reasonable Suspicion Training, Refusals, Positive Test Results, etc. Consult your C/TPA (Consortium/Third-Party Administrator) that manages your CDL drug & alcohol testing. 49 CFR 382.401
<b>ELDT (Entry Level Driver Training)</b>	TPR training providers must retain the BHW documentation, and Theory test/curriculum records a minimum of 3 years. 49 CFR 380.725
<b>Evacuation Drills</b>	Emergency evacuation drills one per semester and documentation shall be kept on file for 2 years from date of drill. KAR 91-38-9
<b>First Aid/CPR</b>	Documentation showing driver has a current certification from an approved course. Expiration dates vary. (Approved Courses: Medic First Aid, American Heart Association, American Red Cross & National Safety Council). <b>NO ONLINE COURSES ACCEPTED</b> Non-CDL bus drivers are required First Aid/CPR. School passenger vehicle drivers hired primarily to provide transportation are required First Aid/CPR. KAR 91-38-6
<b>Maintenance Records</b>	Maintenance records for each vehicle shall be kept as long as the school owns or leases the vehicle, and for at least two years following disposition of the vehicle. KAR 91-38-3
<b>Mandated Training</b>	All Mandated Training. Records include but not limited to: Safety Intervention, Bullying, Sexual Harassment, Suicide Prevention, Blood borne Pathogens & Reasonable Suspicion training for CDL supervisors, etc. Not specifically addressed. Should be considered training records and documentation be kept for the duration of the driver's employment plus 2 years unless otherwise specified. KSA 72-8256, KAR 91-42-3, 91-32-32, OSHA, 49 CFR 382.603
<b>Physicals</b>	Documentation showing driver has a current DOT physical meeting the requirements of 49 CFR 391.41. Documentation is the approved medical examiners certificate and shall be kept for the duration of the driver's employment plus 2 years. Non-CDL bus drivers are required a physical. School passenger vehicle drivers hired primarily to provide transportation are also required a DOT physical. KAR 91-38-6
<b>Pre-trip Inspections</b>	Every School Bus, Activity Bus, & School Passenger Vehicle shall have a pre-trip inspection conducted before its use. The inspection form shall be kept a minimum of one year following the inspection. KAR 91-38-7
<b>Safety Interventions</b>	Determined by School policy. Each district shall develop a system to collect and maintain documentation for each use of an emergency safety intervention. KAR 91-42-3
<b>Safety Meetings</b>	10 safety meetings per school year. All Bus drivers including Non CDL bus driver shall attend. School Passenger Vehicle Drivers hired primarily to provide transportation shall attend. Makeup meetings required. Documentation of attendance and meeting topic shall be kept on file for 2 years. KAR 91-38-3
<b>Waiver (Medical)</b>	Original shall be kept for the duration of the driver's employment plus 2 years. Driver must renew at least every 2 years. Driver shall carry copy on person. Waivers are also available under Federal Regulations in some cases. KAR 91-38-6

## Informational Guide For Hiring New Activity/School Bus Drivers

This document is designed only as an informational guide and or check off list for school districts when hiring new school bus drivers. Individual School or Contractor Policies and Procedures may apply and be a factor in this process. This list is in no particular order.

### 1. Commercial Driver's License (CDL) or regular Driver's License (DL)

- A class A or B, CDL is required for vehicles (school buses) with a gross weight rating of 26,001 pounds or more and/or rated for passenger capacity of 16 or more, including the driver
- A class A, B, or C, CDL is required for vehicles (school buses) with a gross weight rating of 26,000 pounds or less and/or rated for passenger capacity of 16 or more, including the driver
- All CDL holders driving school buses and transporting students must have a "P" and "S" endorsement
- Drivers of school passenger vehicles and school buses with a gross vehicle weight rating of 26,000 pounds or less, and rated for less than 16 passengers, (14 passengers + the driver) are not required a CDL. These individuals are not required a CDL but must have a valid regular DL
- New CDL applicants after passing the written CDL test will be given a Commercial Learners Permit (CLP)
  - CLP holder cannot drive a bus with students on board (federal mandate 49 CFR 383.25)
  - CLP holders must wait 14 days before being eligible to take CDL skills (driving) test (federal mandate 49 CFR 383.25)
 Note: This 14-day waiting period also applies to CDL holders who do not have a P and or S endorsement.
- School District/Contractor is required to have a copy of license on file.
- ELDT (Entry Level Driver Training) applies to anyone obtaining a CLP, or adding a P & S endorsement to an existing CDL  
<https://www.ksde.org/Agency/Fiscal-and-Administrative-Services/School-Finance/School-Bus-Safety/Entry-Level-Driver-Training>

### 2. A disclosure statement meeting the requirements of KAR 91-38-6 which includes:

- Has individual been convicted in any state or federal court of any crime involving a child?
- Has individual been convicted in any state within the last 10 years of any felony.
- Has individual been convicted in any state within the last ten years of any of the following major traffic violations: Hit-and-run driving, driving while under the influence of alcohol or drugs, vehicular homicide, reckless driving, or any offense for which the driver's license was suspended or revoked pursuant to K.S.A. 8-254 and 8-255 and amendments thereto.
- Disclosure statement can be found on website  
<https://www.ksde.org/Portals/0/School%20Bus/Documents-Forms/School%20Transportation%20Provider%20Disclosure%20Jan2020.pdf?ver=2020-01-28-110814-723>  
May be included and made part of the job application
- School District/Contractor is required to have copy of statement on file.
- When accepting job applications for prospective school bus drivers your job application should include a 10-year prior history

### 3. Request a driving record

- Driving Record can be obtained from the Kansas Department of Revenue for a fee  
<https://www.kdor.ks.gov/Apps/DLStatus/login.aspx?ReturnUrl=%2fApps%2fDLStatus%2fSecure%2fDefault.aspx>
- Free status check does is not an official driving record

### 4. Background Check- Optional

- Even though the background check is not required by law for school bus drivers, it is highly recommended

### 5. Tuberculosis Testing.

- School District is required to have all employees who come in regular contact with the pupils of the school district tested by a Licensed Physician for Tuberculosis per KSA 72-5213. Form is available on website

### 6. Physical

- Must meet Federal DOT requirements found in 49 C.F.R. 391.41, forms can be found on website
- Driver of a school passenger vehicle must have physical if primarily hired to provide transportation
- Anyone driving an activity or a school bus must have a physical regardless of what they were primarily hired for
- School District/Contractor shall have a copy of the medical certificate on file

## Informational Guide For Hiring New Activity/School Bus Drivers

### 7. FMCSA Drug & Alcohol Clearinghouse

- You must conduct a full query of the FMCSA (Federal Motor Carrier Safety Administration) Drug and Alcohol Clearinghouse
- More information is available on the KSDE School Bus Safety Drug & Alcohol webpage
- If the prospective employee has had a failure of an alcohol and or drug test AT ANY TIME in the past the prospective employee is not eligible to drive an activity/school bus until this individual completes a SAP (Substance Abuse Program) return-to-duty requirements in 49 CFR Part 40
- If employee is hired, you must also run a limited query prior to end of calendar year

### 8. Drug and Alcohol testing for CDL holders.

- Must have a pre-employment drug and alcohol test
- Provide employee your district's policy and educational materials on drug and alcohol use and obtain a signed statement certifying receipt of the policy/educational materials
- Add to school's random drug testing pool
- Not required for Non-CDL holders
- Non CDL holder cannot be placed in a random drug testing pool with CDL holders
- Schools may establish a separate random drug testing pool for Non-CDL holders

### 9. 12 hours of BTW (Behind The Wheel) Training in a School Bus.

- School bus drivers shall be provided a minimum of 12 hours of bus driver training
- The first six hours of training shall be completed without student passengers
- The second six hours of training may be done with passengers provided the driver is properly licensed with proper endorsement and restrictions
- A CLP (Commercial Learners Permit) holder may not train with students on the bus
- Training provided by another employer may be used to meet this requirement with proper documentation
- 12 hours of BTW is required for Non-CDL buses

### 10. ELDT (Entry Level Driver Training) applies to individuals obtaining a CLP (Commercial Learners Permit)

- Schools intending to provide entry-level driver training for commercial drivers must be registered and listed on FMCSA's Training Provider Registry (TPR). Entry-level driver training includes training for individuals applying for a Class A or B CDL for the first time, upgrading a Class A or B CDL, or applying for a school bus (S), or passenger (P), endorsement for the first time
- Theory training will need to be completed prior to an individual taking their CDL skills test
- BTW (Behind The Wheel) Training will need to be documented by your TPR trainer
- Satisfactory completion of both the Theory and BTW training shall be entered into the TPR database prior to an individual taking their CDL skills test
- More ELDT information including links to on-line Theory and BTW forms can be found on the School Bus Safety ELDT webpage <https://www.ksde.org/Agency/Fiscal-and-Administrative-Services/School-Finance/School-Bus-Safety/Entry-Level-Driver-Training>

### 11. Driver must be certified in First Aid / CPR and complete an Accident Prevention Course.

- Documentation in school/contractor file showing driver has a current First Aid/CPR certification from an approved course. Expiration dates vary. (Approved Courses: Medic First Aid, American Heart Association, American Red Cross & National Safety Council. NO ON-LINE COURSES ACCEPTED)
- Documentation in school/contractor file showing driver has current approved accident prevention course in past 3 years. (Approved Courses: AAA Driver Improvement Program, National Safety Council, Hartford 3-D, Smith System & AARP. NO ON-LINE COURSES ACCEPTED)
- 30-day grace period for new drivers to obtain the First Aid and CPR certification and the Accident Prevention Course



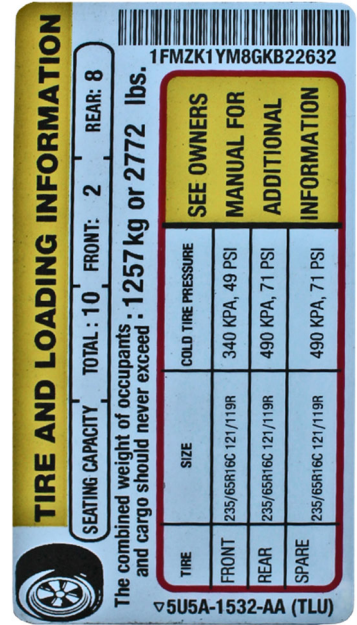
## The use of 12 and 15 passenger rated vans for student transportation is illegal.

Kansas law KSA 72-64,100 prohibits the use of any passenger vehicle, for student transportation, which is rated for more than 10 passengers plus the driver by the manufacturer. Federal law also prohibits the use of these vans and contains substantial penalties for schools, rental agencies and vehicle dealerships.

The rated capacity can be found on the Tire and Loading Information sticker which is normally located on the inside driver's door.

The passenger rating is determined by the vehicle manufacturer and cannot be changed by anyone other than a manufacturer.

It is illegal for the school or anyone other than a manufacturer to remove seats from a van to meet the mandated passenger requirement for student transportation. This would apply to both a school and/or a dealership if the intention is to circumvent the mandated passenger rating for school transportation.



## Van vs Bus

### This is a Van



- A van will have a sliding or cargo style door for additional passenger entry
- 12 & 15 Passenger Rated Vans are illegal for student transportation

### These are buses

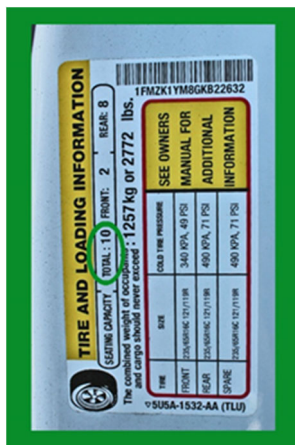


- A bus will have a service door and a stepwell for passenger entry
- Buses are rated for more than 10 passengers in addition to the driver
- Contact Keith or Dennis with questions

## Tire & Load Stickers

Any VAN used for student transportation shall have a legible tire and load sticker applied by the manufacturer indicating a passenger rating of 10 passengers or less. 12 and 15 passenger rated vans are illegal for student transportation.

Note: The vehicle shall not have any attachment/access points and or tracks for additional passenger seats. This excludes vans designed for wheel chairs.



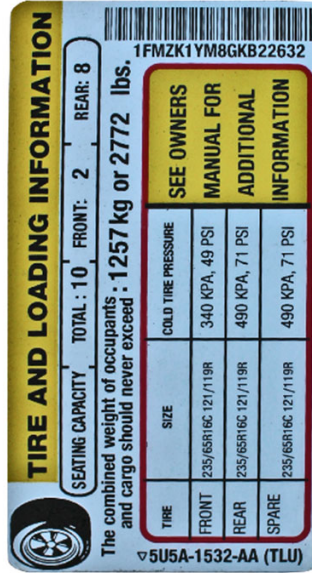
## Second Stage Manufacturer/Converter

Currently no new vehicle manufacture is producing a gas powered, 10 passenger rated van. An available option for schools to purchase a 10 passenger rated van is by using a reputable, licensed, second stage manufacturer.



The second stage manufacturer takes a NEW VAN, still on a Manufacturers Certificate/ Statement of Origin, which may or may not have a passenger rating. Altering the vehicle per ALL applicable Federal Motor Vehicle Safety Standards, Federal and State Laws necessary to produce a 10 passenger rated van. The second stage manufacturer then certifies the passenger rating and applies the appropriate Tire and Load sticker. The school SHALL NOT purchase or take possession of any van until the second stage manufacturer completes the work and applies the appropriate Tire and Load sticker with the 10 passenger rating.

Bear in mind, federal and state laws pertaining to the passenger rating necessary for legal and safe transportation of students. The requirement for a reputable second stage manufacture is paramount in the event the vehicle is involved in a crash.



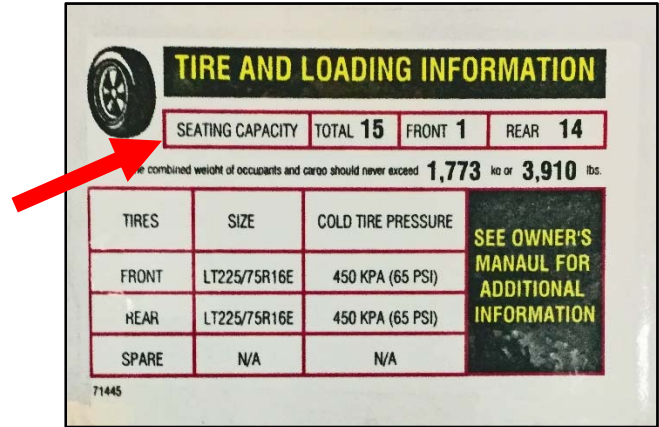
**72-64,100. Transportation of pupils; use of school bus required; when.** (a) Except as provided by subsection (b), any school district or nonpublic school transporting students in a vehicle designed for transporting more than 10 passengers in addition to the driver, shall transport such students in a school bus, as defined in subsection (g) of K.S.A. 72-6486, and amendments thereto, or in a bus other than a school bus designated in clauses (3) and (4) of subsection (c) of K.S.A. 72-6486, and amendments thereto.

(b) Notwithstanding the provisions of subsection (a), any school district or nonpublic school which has purchased and has placed into operation prior to July 1, 2001, any motor vehicles designed for transporting more than 10 passengers, but less than 15 passengers, and is not a school bus, may continue to operate such motor vehicles for the purpose of transporting students until July 1, 2005.

History: L. 2001, ch. 142, § 1; July 1



The CDL (Commercial Driver's License) requirement for a bus is based on the rated capacity and GVWR (Gross Vehicle Weight Rating). Both the rated capacity and GVWR of a bus is determined by the original manufacturer and can be found on a sticker or plate inside the bus. The bus is certified by the manufacturer for the rated capacity and cannot be changed by anyone other than the manufacturer. The rated capacity directly affects the compartmentalization of the school bus. Cases of the passenger rating being changed are extremely rare.



**TIRE AND LOADING INFORMATION**

SEATING CAPACITY TOTAL **15** FRONT **1** REAR **14**

The combined weight of occupants and cargo should never exceed **1,773** kg or **3,910** lbs.

TIRES	SIZE	COLD TIRE PRESSURE
FRONT	LT225/75R16E	450 KPA (65 PSI)
REAR	LT225/75R16E	450 KPA (65 PSI)
SPARE	N/A	N/A

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

71445



GVWR (Gross Vehicle Weight Rating) 26,000 lbs or less

Drivers operating a yellow school bus with a GVWR of 26,000 lbs or less and rated for 14 passengers or less plus the driver are not required to have a CDL (Commercial Driver's License). These drivers are also not required federal mandated alcohol & drug testing.

**All drivers are required with NO exceptions:**

- Valid Driver's License
- DOT Physical Required
- First Aid/CPR Required
- Defensive Driving Required
- 10 Safety Meetings Required
- 12 Hours of Behind the Wheel Training

**Additional Information:**

- Can be used on a route to transport students from school to home or home to school.
- Can be used for activity trips.
- It is illegal to remove seats from the bus or transport fewer passengers than the rated capacity to circumvent the CDL requirement



GVWR (Gross Vehicle Weight Rating) 26,000 lbs or less

Drivers operating a white (or any other color) activity bus with a GVWR of 26,000 lbs or less and rated for 14 passengers or less plus the driver are not required to have a CDL (Commercial Driver's License). These drivers are also not required federal mandated alcohol & drug testing.

**All drivers are required with NO exceptions:**

- Valid Driver's License
- DOT Physical Required
- First Aid/CPR Required
- Defensive Driving Required
- 10 Safety Meetings Required
- 12 Hours of Behind the Wheel Training

**Additional Information:**

- Cannot be used on a route to transport students from school to home or home to school
- Can be used for activity trips
- It is illegal to remove seats from the bus or transport fewer passengers than the rated capacity to circumvent the CDL requirement

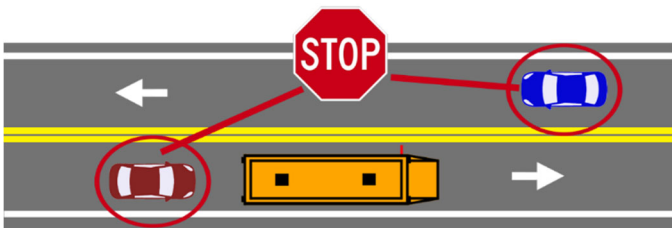




Kansas law, KSA 8-1556 requires all motorists to stop when approaching or overtaking a stopped school bus displaying its flashing red lights and stop arm. Motorists are to remain stopped until the bus is no longer displaying its flashing red lights and stop arm. Violation of this law not only endangers children but is also punishable by a fine and court costs in excess of \$420.

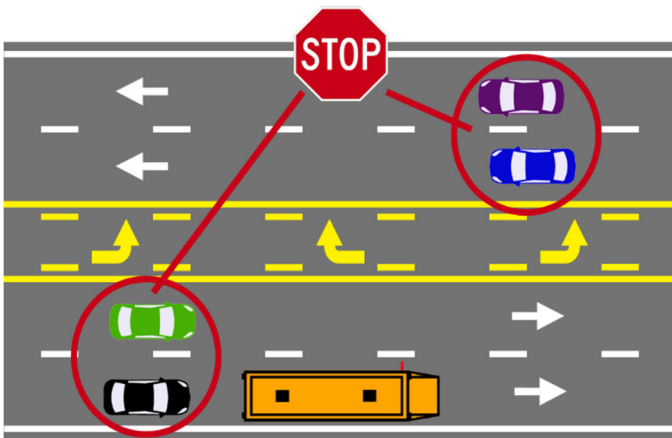
### Two - Lane Roadway

When a school bus stops and activates its stop arm and flashing red lights, all traffic must stop from both directions.



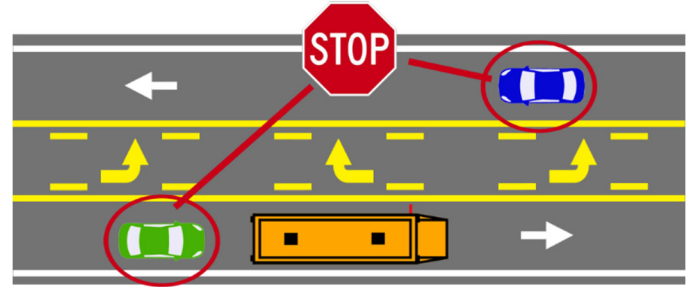
### Four - Lane Roadway with Shared Left Turn Lane

When a school bus stops and activates its stop arm and flashing red lights, all traffic must stop from both directions.



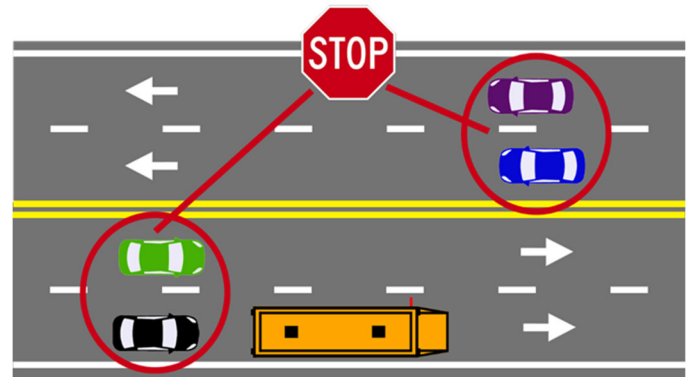
### Two - Lane Roadway with Shared Left Turn Lane

When a school bus stops and activates its stop arm and flashing red lights, all traffic must stop from both directions.



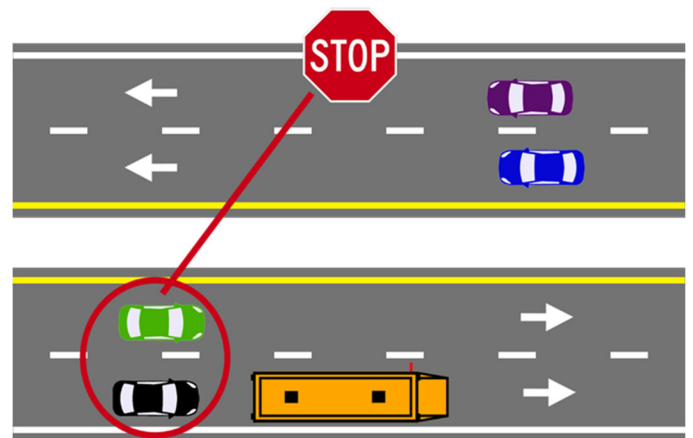
### Four Lane Roadway with Double Yellow Line

When a school bus stops and activates its stop arm and flashing red lights, all traffic must stop from both directions.



### Divided Highway with a Median Separation

When a school bus stops and activates its stop arm and flashing red lights, all traffic approaching from behind must stop.



## Kansas School Bus, Activity Bus and School Passenger Vehicle Inspection Information

Between June 1 and September 30, each year all Kansas School Buses, Activity Buses and School Passenger Vehicles shall be inspected. The inspection process is two-part with the first part being conducted by a mechanic knowledgeable about the mechanical systems of school buses and has a letter certifying his qualifications. The inspections shall meet the requirements of the Federal Motor Carrier Safety Regulations appendix A to part 396 Minimum Periodic Inspection Standards, Applicable FMVSS, Kansas State Law and all applicable National School Transportation Specifications adopted by the National Congress on School Transportation

This inspection should be done by a knowledgeable mechanic who:

- Understands the inspection criteria set forth in US Department of Transportation Federal Motor Carrier Safety Administration Regulations part 49 CFR 393 and appendix A and can identify defective components
- Is knowledgeable of and has mastered the methods, procedures, tools and equipment used when performing an inspection
- Is capable of performing an inspection by reason of experience, training, or both as follows
- Has a combination of training or experience totaling at least 1 year.
- The mechanic shall have a signed letter on file certifying that they are knowledgeable in performing vehicle inspections in compliance with the Federal Motor Carrier Safety Administration Regulations

The Mechanic inspection consists of inspecting the school bus utilizing criteria from:

- The US Department of Transportation Federal Motor Carrier Safety Administration for periodic inspection, 49 CFR Part 393, Appendix A
- Applicable Body and Chassis Specifications from the National School Transportation Specifications and Procedures
- Applicable FMVSS (Federal Motor Vehicle Safety Standards)
- Applicable State & Federal Laws
- Information on these items can be found on the KSDE School Bus Safety Unit's website.

Failure to conduct a thorough mechanic inspection is not only a violation of law but endangers the safe transportation of students. The mechanic inspection can be completed by either school mechanics or and independent mechanic shop. An inadequate mechanic inspection will generate a contact to school officials by the Kansas State Department of Education.

After the mechanic inspection is completed and documented on the appropriate form provided by the Kansas Department of Education, each Bus and School Passenger Vehicle shall be inspected by the Kansas Highway Patrol to determine whether the mechanical inspection was completed, and the bus is equipped with the appropriate safety devices and those devices are in proper working order.

This two-part inspection process is critical to the safe operation of Kansas School Buses, Activity Buses and School Vehicles. No school bus, activity bus or school passenger vehicle shall be used to transport students until the inspection process has been completed and the bus is in proper working order.

Any school bus, activity bus, or school passenger vehicle that is purchased at any time following the required annual inspection period shall be inspected before being used to transport students.

Forms and more information can be found on the KSDE School Bus Safety website <https://www.ksde.org/Agency/Fiscal-and-Administrative-Services/School-Finance/School-Bus-Safety/Bus-School-Vehicle-Inspections>

SUBJECT: Vehicle Wrap on Activity Bus and School Passenger Vehicle Windows

We understand and fully respect the Kansas Highway Patrol's position and interpretation of Kansas law on the subject of certain types of material on activity bus and school passenger vehicle windows. However, their interpretation of Kansas law (KSA 8-1741) is different than ours. The Kansas Highway Patrol signs off on the inspection, and their opinion and interpretation is extremely important and they believe that wrap placed on activity bus and school passenger vehicle windows is legal.

The position, opinion and recommendation of the Kansas State Department of Education School Bus Safety Unit on this subject is: we ask the school to refrain from graphics or material of any type on any of the bus windows or school passenger vehicle windows.

We justify this position based on the vehicle is transporting children, and we believe any vehicle transporting children should be held to a higher standard.

Another cause of concern for us is that this bus and or school passenger vehicle may be equipped with tempered glass in the side windows which allows the glass to crumble out of the opening when broken for ease of egress. Putting any type of material on this glass would prevent it from crumbling.

There are additional regulations which would prohibit this on yellow school buses but activity buses and school passenger vehicles would fall under KSA 8-1741.

In the event an activity bus or school passenger vehicle is ever involved in an accident with wrap on the windows, please understand our opinion and recommendations would be discoverable.

If you have any questions please contact Dennis Tate or myself.



Keith Dreiling, State Director  
Kansas Department of Education  
School Bus Safety Unit

## MISSION

To prepare Kansas students for lifelong success through rigorous, quality academic instruction, career training and character development according to each student's gifts and talents.

## VISION

Kansas leads the world in the success of each student.

## MOTTO

Kansans Can

## SUCCESS DEFINED

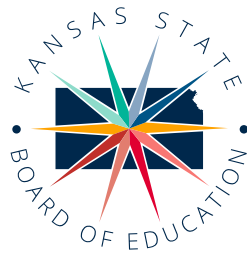
A successful Kansas high school graduate has the

- Academic preparation,
- Cognitive preparation,
- Technical skills,
- Employability skills and
- Civic engagement

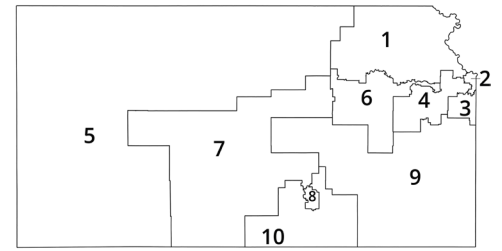
to be successful in postsecondary education, in the attainment of an industry recognized certification or in the workforce, without the need for remediation.

## OUTCOMES

- Social-emotional growth
- Kindergarten readiness
- Individual Plan of Study
- Civic engagement
- Academically prepared for postsecondary
- High school graduation
- Postsecondary success



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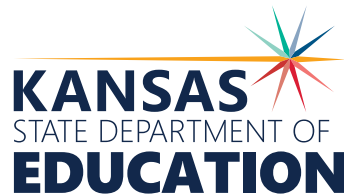


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*Kansas leads the world in the success of each student.*