

ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids for One (1) 2017 Activity Bus will be received in the Bismarck Public Schools Facilities and Transportation Office, 705 South 9th Street, Bismarck, ND, until Wednesday January 18, 2017 at 1:00 PM local time, at which time they will be publicly opened and read aloud. All bids received after the scheduled time will be returned to the bidder unopened.

A copy of the bid document including specifications is available at 705 South 9th Street, Bismarck, by calling Jen Clooten at 701-323-4502 or on our website at [www.bismarckschools.org](http://www.bismarckschools.org).

Each bid shall be submitted in duplicated copy and enclosed in a sealed opaque envelope upon which there is disclosed the necessary information as required by the Bid Documents. Please mark "Bid for Activity Bus" on the envelope.

The Owner reserves the right to hold all legitimate bids for a period of Thirty (30) days after the date fixed for the opening thereof. The Owner further reserves the right to reject any and all bids or portions thereof and to waive irregularities, and the Owner shall incur no legal liability for the payment of any monies until the contract is awarded and approved by the proper authorities.

Dated this 15th day of December 2016.

/s/ Darin Scherr  
Darin Scherr, Business and Operations Manager  
Bismarck Public School District #1  
806 N Washington Street  
Bismarck, North Dakota 58501

2016-17 Bus Purchase  
Transportation Department

December 2016

Bismarck Public Schools  
Bismarck, North Dakota



DESCRIPTION OF WORK

BID DOCUMENTS:

1. General Information
2. Advertisement of Bids
3. Specification
4. Request for Approval of Substitution
5. Bid Tabulation Sheet

SCOPE:

- A. This project shall consist of:
  1. One (1) – Rear Engine White Activity Bus
- B. Bids are due on January 18, 2017 at 1:00 pm local time.
- C. Delivery: Contractor is required to assume full responsibility for the delivery of bus and shall save the district harmless against fire, public liability, and property damage until delivery is complete at the specified site. Delivery shall be made during normal school bus shop operating hours (7:00 AM – 4:00 PM) and workweek (Monday – Friday). Deliveries will not be accepted on holidays. All deliveries shall be to Facilities & Transportation Building at 705 S 9th St Bismarck, ND.

BID SUBMITTAL REQUIREMENTS

**Each bid** shall be submitted in duplicated copy and enclosed in a sealed opaque envelope upon which there is disclosed the necessary information as required below.

COORDINATION:

The bidder shall coordinate all aspects of the project with the Assistant Director of Transportation (or his designee). Contact: Bob Brown, Assistant Director of Transportation, 701-323-4499

APPROVAL OF SUBSTITUTIONS

Substitutions for specified items must be approved by BPS in writing, prior to submission of bid. It is the responsibility of the bidder to provide adequate information for evaluating the acceptability of any and all items they wish to offer as substitutes. Submission of substitutions shall be sent to [bob\\_brown@bismarckpublicschools.org](mailto:bob_brown@bismarckpublicschools.org) by 12:00 pm January 11, 2017. Approved of any or all substitutions shall be emailed to each vendor by 5:00 pm on January 13, 2017.

END OF DESCRIPTION OF WORK

## **Bismarck Public Schools -Facilities and Transportation School Bus Specifications**

### **GENERAL INFORMATION**

These specifications shall cover the minimum requirements for school buses constructed for sale to Bismarck Public Schools (hereinafter referred to as BPS).

It is the intent of these specifications to provide vehicles allowing the safest operating conditions available, the greatest ease of maintenance, and the lowest possible life cycle cost.

In all cases, the materials and/or equipment used in the construction of these vehicles shall meet or exceed the requirements of these specifications. The buses shall consist of the specific items listed and such other items or components that are considered industry standard in a complete school bus.

All models offered for sale must be new and of a model in current production or an update of an existing model. All buses shall meet the requirements of the Federal Motor Vehicle Safety Standards (FMVSS) for School Bus Construction. The quality of materials and workmanship shall result in school buses meeting all FMVSS and be ready for operation ("Ready to Use") for the intended application. "Ready to Use" shall be defined as meeting all applicable specifications, with all equipment functioning properly and without substantive defects.

### **EXCEPTIONS**

By submission of signed bid, vendor certifies that the equipment it proposes to furnish complies with all specifications listed herein. Substitutions for specified items must be approved by BPS in writing, prior to submission of bid. It is the responsibility of the bidder to provide adequate information for evaluating the acceptability of any and all items they wish to offer as substitutes.

### **PUBLICATIONS**

The successful vendor shall be required to furnish one (1) set of the following: parts books, service manuals, wiring diagrams, etcetera.

Parts books and/or parts listings shall be explicit in detailing all parts used in the construction of these buses. The successful vendor shall provide one (1) copy of the parts listings on CD ROM.

## **SERVICE**

A pre-delivery service shall be performed on each bus prior to delivery. This service shall insure that all fluid levels and tire pressures are at proper levels and that all components on the buses are fully operational and properly adjusted. Documentation shall be provided to BPS noting the repairs and/or adjustments necessary. Other notations shall at a minimum include total miles driven during road test (minimum of 10 miles), transmission shift points at full throttle, coolant freeze levels, coolant inhibitor levels, front axle alignment and tire balance.

## **DELIVERY**

Contractor is required to assume full responsibility for the delivery of bus and shall save the district harmless against fire, public liability, and property damage until delivery is complete at the specified site. Delivery shall be made during normal school bus shop operating hours (7:00 AM – 4:00 PM) and workweek (Monday – Friday). Deliveries will not be accepted on holidays.

## **WARRANTY**

Bidders shall be required to furnish with their bids a warranty (parts and labor) covering all materials and workmanship used in the construction of vehicles provided under this contract; excluding normal service and maintenance items (fluids, filters, tires, bulbs). Written warranties **MUST** be included with bid package.

Warranty coverage shall be sixty (60) months/100,000 miles for complete power train, electronic controls, body structure, and paint. All other items shall be warranted for a minimum of twelve (12) months/unlimited mileage or manufacturer's standard warranty, whichever is greater, unless otherwise specified herein.

Components carrying extended warranties or warranties that are supported in part or in whole by a party other than the bidder shall require written certification. This certification must be attached to the bid and shall be in the form of a letter, on company letterhead, clearly delineating the portion of warranty to be covered and signed by appropriate personnel. It shall be understood that certification by component manufacturers in no way decreases the bidders' responsibility for maintaining the warranty periods as specified herein.

## **SCHOOL BUS SPECIFICATIONS**

The following specifications relate to a rear engine activity type bus.

### **1. AIR CLEANER**

Each engine shall be equipped with a heavy-duty, dry type, replaceable cartridge air cleaner with manufacturer's maximum available service life. The air cleaner shall be mounted to allow for servicing and/or replacing the element without removing or loosening the housing.

### **2. AIR CONDITIONING**

Bus shall be equipped with 120,000 btu air conditioning unit. The evaporators shall be skirt mounted and outer cover to be painted white to match the bus. The system shall be ducted through the overhead compartments with vent at each seat location.

### **3. AIR DEFLECTOR**

Bus shall be equipped with a BLACK SEE II air deflector or equivalent.

### **4. ALTERNATOR**

The electric power source shall be a heavy-duty bus/truck type alternator manufactured in the USA. This alternator shall produce a minimum two hundred (270) ampere output and a maximum cold continuous draw of ten (10) milliamperes. If alternator is located within eight inches (8") of the turbo, a heat shield must be installed to direct heat away from the alternator.

### **5. AXLES**

Axle ratings, front springs, and frame rails shall be compatible in load rating requirements. The manufacturer shall be responsible for providing axle weight ratings necessary to meet school bus certification.

**FRONT AXLE** - The front axle shall be of a heavy duty, truck type with a capacity rating of not less than eight thousand (13,000) pounds. Front axle bearings shall be self-lubricating, wet type with a two (2) piece grease seal. Axle hubs shall have threaded type fill port and shall provide for visible fluid level check. Front axle alignment specifications for toe-in and turn radius shall be verified during pre-delivery inspections and shall be warranted for a minimum of ninety (90) days. All other adjustments and/or components affecting steering geometry shall be covered for full warranty period.

**FRONT SUSPENSION** - Front suspension shall be parabolic spring type with shock absorbers.

**REAR AXLE** - The rear axle shall be heavy-duty, truck type with a minimum rating of seventeen thousand five hundred (21,000) pounds. Axle shall be equipped with a magnetic fill plug and magnetic drain plug.

**REAR SUSPENSION** - Rear suspension shall be leaf type with shock absorbers.

## **6. BATTERY**

All chassis shall come equipped with dual twelve volt (12v), maintenance free, commercial duty, stud-type, batteries. All battery cables shall be appropriately sized. The batteries shall be designed with a minimum capacity rating of nineteen hundred Cold Cranking Amps (1900 CCA) combined at zero degrees Fahrenheit with one hundred eighty (180) minute reserve capacity at 80 degrees Fahrenheit. A manual battery disconnect is to be installed inside the battery box.

## **7. BODY BOWS**

Body bows shall be constructed as one piece.

## **8. BRAKES**

All components of the service brake, emergency stopping system and parking brake shall be designed to meet all requirements of the FMVSS 121. All chassis shall be equipped with air brakes and air dryer. Air dryer to be mounted ahead of rear axle. Drain valve shall be automatic with heater for air tank and have pull cord for manual operation.

## **9. BUMPER**

All buses shall be equipped with heavy-duty, one-piece front (minimum 1/4" thick) and rear (minimum 3/16" thick) bumpers pressed from twelve inch (12") wide channel steel. Openings in the front bumper for accessing tow hooks may be provided but must be no larger in size than is required to access hooks.

## 10. CAPACITY

46-48 with Activity Style Seating

The finished inside body height shall be a nominal seventy-three inches (73") minimum measured at any point on the longitudinal centerline from the front vertical bow to the rear vertical bow.

## 11. DOORS

**FUEL FILLER DOOR** - A suitable door of not less than sixteen (16) gauge steel shall be installed over fuel filler opening on side of body. This door shall be spring-loaded and shall remain in a closed or open position. This door should also be lockable.

**SERVICE DOOR** - Service door shall be outward opening and designed to prevent accidental openings. The door shall be located on the right side of the bus and controlled by the driver. Door shall include a vandal lock.

Door control lever/switch shall be mounted in an approved location that is easily accessible to the driver.

Door shall be equipped with an emergency release control located in or adjacent to the door header panel and designed to exhaust air supply from the operating mechanism. This control shall be clearly and permanently marked, including operating instructions. Door operating mechanism shall be fully adjustable, located overhead of door and concealed behind a removable access panel.

Door shall seal against a stationary rubber strip and bottom step edge. No part of door shall ride in the stepwell when closed. The door shall completely enclose the stepwell opening, and when fully opened shall provide a minimum clear entrance area of twenty-four inches (24") wide and seventy-six inches (76") high.

A suitable drip molding or rail to shed water shall be located above the door. A padded safety bar shall be installed on the inside over the top of the entrance door.

A stainless steel assist rail (minimum 20" length) shall be installed on all units on the windshield side of the entrance stepwell. This rail shall be securely mounted and installed in such a manner as to afford easy accessibility to small children during bus entry and/or egress.



## 12. DOME and COMPARTMENT LIGHTS

Dome lights shall be switched for the driver, passengers and rear. Dome lights shall be located in the center of the isle of bus (six minimum).

Compartment lights shall be installed in each overhead compartment with one switch to control all compartment lights.

## 13. EMERGENCY EQUIPMENT

All emergency equipment (except Seat Belt Cutter) shall be properly mounted and include the following

**BODY FLUID CLEAN-UP KIT** - All buses shall be equipped with a removable, moisture proof and dust proof body fluid clean-up kit meeting state requirements.

**FIRE EXTINGUISHER** - All buses shall be equipped with a dry chemical, compressed air type fire extinguisher bearing Under Writer's Laboratories, Inc. rating of not less than 2A-10BC (5 lbs). The extinguisher shall be equipped with a pressure gauge and a flexible rubber hose. The fire extinguisher shall be securely mounted in such a manner as to allow reading the pressure gauge without removing the extinguisher from the bracket. The operating mechanism shall be sealed to prevent tampering. The seal shall not interfere with the use of the fire extinguisher.

**FIRST AID KIT** - All buses shall be equipped with a removable, moisture proof and dust proof first aid kit meeting state requirements.

## 14. EMERGENCY EXITS

All emergency exits shall conform to FMVSS 217 and shall be appropriately marked with operating instructions. Operating instructions shall not be affixed to glass surfaces.

**EMERGENCY PUSH OUT WINDOWS** - Buses shall be equipped with 2 push out windows located on each side. Positioning of these windows shall be staggered. Windows shall be hinged to the front and latched in such a manner as to permit easy release. Interior latches/handles for these windows shall be designed in such a manner that will eliminate snagging of clothing during emergency evacuations. Bus shall be equipped with a rear emergency window.

**EMERGENCY ROOF HATCHES** - Bus shall be equipped with two emergency roof hatches.

## 15. EMERGENCY EXIT BUZZERS

**ROOF HATCHES** – The roof hatches will be equipped with the necessary switches, wiring, and buzzer or audible alarm with indicator located in the driver’s area, so as to alert the driver when either of the latches for these items is moved toward a released position.

## 16. ENGINE

The chassis shall be equipped with a heavy-duty, electronically controlled turbo diesel engine. Electronic links between the engine and transmission shall interface to insure optimal operating efficiency. All engines shall be equipped with an ignition switch operated electric shutdown. A minimum of one (1) spare key shall be provided with each bus.

All engines must be unaltered current production models and shall meet all applicable Federal Regulations at the time of purchase. Engine must be a turbo diesel rated at a minimum of 300 HP and 860 ft-lbs Torque. Cummins engine is preferred.

Turbo charger and water pump shall carry same warranty as engine. Turbo charger failure caused by lack of lubrication shall not be cause to void the warranty. All engines shall be equipped with a thermostatically controlled cooling fan.

All engines shall be equipped with a primary fuel/water separator filter and a secondary fuel filter of the engine manufacturer’s standard type. The fuel/water separator shall be designed for easy detection of water accumulation without removal of filter and shall be equipped with a built in drain valve.

Engine shall be equipped with block type heater (rated at 750 watts/120 volt). Engine shall have electronic fast idle that is controlled by brake.

Engine compartment light shall be provided.

Fuel/Water Separator to be thermostatic controlled electric heater.

Engine shall come with turbo exhaust brake with on/off switch in dash.

## 17. GLASS

All glass shall be legibly and permanently marked. There shall be no exposed glass edges.

**WINDSHIELD** - The windshield shall be of a glass construction consisting of polished plate glass, AS1 and conforming to American Safety Code for Safety Glazing Materials. Glass to be solidly set to provide a watertight fit. The windshield shall have 73% windshield tint.

**WINDOW AND DOOR GLASS** - Glass used in doors and windows shall be tinted tempered glass.

**STORM GLASS** – The driver’s window, the service door and the first window on each side shall utilize storm glass.

## **18. FLOOR**

**FLOOR CONSTRUCTION** – The floors shall be constructed of 5/8” exterior grade plywood.

**FLOOR COVERING** - The metal floor in the under seat area including wheel housing and driver's compartment shall be covered with black or charcoal, fire resistant smooth flooring (Koroseal, RCA or approved equal) with a minimum overall thickness of one eighth inch (1/8”). The floor covering shall have a minimum, dry static coefficient of friction of 0.6 as determined by ASTM D 1894-93.

This covering shall extend forward all the way to the front wall and shall be secured in an approved manner. All floor openings shall be adequately sealed. The floor covering over openings shall be cut in sections to conform to any removable floor panels. The covering shall be removable with the panel without disturbing the flooring in the other areas.

The aisle and entrance platform area shall be covered with an aisle type ribbed (Koroseal, RCA or approved equal) flooring having a minimum thickness of three-sixteenths inch (3/16”).

All steps including nosing, shall be covered with raised pebble design material (Koroseal, RCA or approved equal) complying with the requirements of the 2010 National School Transportation Specifications and Procedures.

The adhesive for laminating all floor covering to the floor shall be a water and fire resistant type.

**FLOOR PANEL JOINTS** - Must meet Federal Motor Vehicle Standard #221.

## 19. FUEL TANK

An aluminized steel fuel tank shall be furnished on all chassis and shall be constructed and installed so as to conform to FMVSS 301.

### *Minimum Fuel Tank Specifications*

Wheelbase	Tank Capacity	Location
273 " - 279"	100 gal.	Between Frame Rails

No portion of the fuel tank/cage assembly shall be located within the angle of departure. The fuel tank neck must be metal, securely mounted and shall be equipped with a standard non-vented cap capable of sealing the neck preventing fuel spillage. The bus body floor shall include an access plate for servicing and/or removing the sending unit. The fuel tank door shall be key lockable.

Fuel lines shall meet all applicable Federal Motor Vehicle Safety Standards.

## 20. HEADLIGHT ADJUSTMENT

Headlights shall be adjusted before delivery of bus.

## 21. HEATER AND DEFROSTER

Heater/defroster system shall be heavy duty, hot water type, having a minimum rated capacity of 308,000 BTU's per hour. The rating will be based on one hundred fifty (150) degree Fahrenheit temperature difference between incoming air and water. All heaters shall bear the manufacturer's nameplate showing performance ratings.

**HEATER, LEFT FRONT** - The left front heater arrangement shall supply heated air to the driver's compartment area and toward the rear into the passenger area. The heater shall be rated at 90,000 Btu/hr.

**HEATER, RIGHT FRONT** - The right front heater arrangement shall supply heated air toward the rear into the passenger area. The heater shall be rated at 50,000 Btu/hr.

**HEATER, REMAINDER** – 4 heaters shall be located under passenger seats equally spaced throughout the bus and shall not obscure foot room of passengers seated behind the heater. Heater unit will be protected so as to alleviate damage to the heater and components from passengers under normal operating conditions. All plumbing shall be

secured and adequately protected. The heater housing and related components shall be insulated/protected to alleviate excessive surface temperatures. The heater shall be rated at 84,000 Btu/hr.

**AUXILLIARY HEATER** – Bus shall be equipped with an engine preheater (Webasto 45,000 BTU heater with timer and mounted in a compartment).

**BOOSTER PUMP** - All heater systems shall be equipped with an under hood mounted auxiliary, heavy duty booster pump with metal housing to insure adequate coolant flow to the heater/defroster system.

**CORES** - The heater cores shall be a heavy-duty coil type. The coil shall be high-pressure copper tubes with aluminum plate type fins with self-spacing, die formed collars completely covering the tubes. Cores of the cellular type, not made of 100% brass or copper, will not be accepted. The heater core shall be set in rubber or shall be otherwise suitably supported in a manner to minimize shocks and strains, which might produce core leaks.

**DEFROSTER** - The defroster installation shall provide airflow outlets along the entire length, of the lower edges, of the windshields to provide for adequately defrosting/clearing the full length of the windshield. Two defroster fans shall be installed. Both fans are to be mounted in the center of the front bulkhead, directly above the windshield. A suitable device shall be provided to preclude dropping foreign objects through the defroster outlets into defroster motor area.

**PLUMBING** – All heaters shall be plumbed in a series configuration.

## **22. HORN**

All chassis shall be equipped with a minimum of one, two-tone electric horn. The horn shall be securely mounted and located away from the wheel splash area so as to prevent contamination from road spray. Horn switch (button) shall be located on the steering wheel.

## **23. INSTRUMENTS AND INSTRUMENT PANEL**

The dash shall be designed to eliminate glare on the gauges when operating the bus in bright sunlight. All instruments and gauges shall be mounted on the instrument panel in such a manner that each is clearly visible to the driver while in a normal seated position.

The chassis shall be equipped with an instrument panel consisting of the following instruments and gauges (lights in lieu of gauges are not acceptable):

**COOLANT TEMPERATURE GAUGE** - Shall include a warning light and buzzer to indicate high water temperature based on engine manufacturer's recommendation. Water temperature sensor shall be located on the engine.

**ENGINE SERVICE LIGHT** – A dash-mounted light shall be provided to indicate if the electronic engine control module detects a malfunction.

**FUEL GAUGE**

**HIGH BEAM HEADLIGHT INDICATOR** - Must have replaceable bulb or be LED lighted.

**INSTRUCTIONS** - Any special operating instructions for engine or transmission shall be displayed in an approved location on the dash panel.

**LOW COOLANT WARNING** - Shall include a warning light and buzzer to indicate low coolant levels in the de-aeration tank.

**ODOMETER** - Shall indicate a minimum of six (6) digits not including tenths (1/10) of a mile.

**OIL PRESSURE GAUGE** - Shall include a warning light and buzzer to indicate low oil pressure based on engine manufacturer's recommendation. If mechanical oil pressure gauge is provided, all inside plumbing shall utilize stainless steel braided hose.

**SPEEDOMETER, ELECTRONIC** - Shall be calibrated to meet all applicable FMVSS guidelines and front wheel or transmission driven. The speedometer shall be mounted so as to be readable from the right front passenger seat when the bus is in operation.

**TACHOMETER/ENGINE HOURMETER** – Hour meter shall be wired to operate only when engine is running.

**TRANSMISSION TEMPERATURE GAUGE**

**TURN SIGNAL INDICATORS, LEFT/RIGHT** – Must have individually replaceable bulbs or be LED lighted.

**VOLTMETER** - Shall have a graduated scale capable of indicating up to sixteen volts (16v), shall indicate battery voltage, and shall be off when the ignition switch is in the off position.

**24. INSULATION AND SEALING**

**ENGINE COMPARTMENT** - Noise barrier insulation shall be provided to reduce interior engine noise level at the driver's right ear to a maximum of seventy-eight decibels (78 db).

**RAILS** – Seal top edge of all rails.

**ROOF/SIDES** – The space between all interior and exterior body panels shall be insulated using a minimum of one and one half inches (1 1/2") of insulation having a minimum R-6 rating. This insulating material shall also be installed in all voids created by roof bows, body caps, and etcetera.

## **25. LAMPS AND DIRECTIONAL SIGNALS**

All lighting equipment shall be furnished to comply with the FMVSS 108 and the laws and regulations of the State of North Dakota except for 8 light warning lights shall NOT be installed. All lights shall be LED (light emitting diode) lamps and shall have a hard shell coating to protect from chemicals and abrasion. The lighting equipment provided shall at a minimum include:

**STROBE LAMP** - All buses shall be equipped with a white strobe lamp having a minimum rating of ten (10) joules, double flash, and a maximum height of six inches (6"). The strobe lamp flash tube shall be warranted for a minimum of twelve (12) months. All other components shall be covered for the full warranty period. This light shall be wired so as to operate with a separate switch.

## **26. LETTERING**

All lettering to be painted on high quality automotive type vinyl and shall be black shadow unless specified otherwise herein.

The words "*BISMARCK PUBLIC SCHOOLS*" in six inch (6") script letters shall be applied directly under windows and centered front to rear. Lettering shall also be included on the front and back. **Front to be white reflective over the black painted roof cap.**

Bus number shall be obtained from BPS and installed per BPS specification.

## **27. LUBRICATION**

Chassis lubricating system shall be high-pressure type with standard hydraulic type grease fittings. Fittings shall quick attachment type and shall be positioned so as to be easily accessible for maintenance and service without removal of panels/components.

## **28. MIRRORS**

**EXTERIOR MIRRORS** - All buses shall be equipped with an exterior mirror system complying with all requirements of FMVSS. The mirrors shall also be heated. The mirrors shall be remote controlled.

**INTERIOR MIRROR** - (1) interior, driver adjustable (6" x 30") convex rearview mirror with transparent visor shall be mounted above windshield to provide the driver with full view of bus interior.

**29. MUD FLAPS**

Mud flaps shall be provided for the rear wheels shall be black rubber.

**30. PAINT**

All paint shall be lead free, high baked enamel, thermo-setting acrylic enamel, catalytic acrylic or two (2) part polyurethane enamel.

***Color Requirements***

Black, Gloss	Bumpers, chassis.
Interior	Manufacturer's Standard at time of production (except aluminized or Galvalume panels)
White	Exterior paneling to be painted white.
Black	<b>Side Windows, windshield area, rear window, and front roof cap area.</b>
Other	Seat frames may be manufacturer's standard

**31. RADIATOR**

Heavy-duty, truck type radiator exceeding engine and transmission manufacturers heat rejection requirements shall be furnished and mounted so as to prevent undue strain and vibration being transmitted to it through attaching parts. The radiator and coolant recovery system shall carry the same warranty as the engine. The fan shall be clutch type with temperature control. The antifreeze shall be rated to minus 40 degrees.

**32. RADIO**

AM/FM Stereo radio/CD with 6 speakers.

**33. RECOVERY ATTACHMENT POINTS**

Recovery points shall be provided on both the front (2) and rear (2) of the bus. These points shall allow recovery of the bus without causing damage to either chassis or body parts,



when pulled horizontally anywhere from zero (0) degrees through a forty-five (45) degree cone angle or vertically, based on pull strength requirements listed below.

#### **34. SEAT AND SEAT BELT, DRIVER**

**DRIVER'S SEAT** - The driver's seat shall be air suspension type of a high back design with dual arm rests. The driver's seat cushion shall be of a semi bucket design. Padding for the seat back and seat cushion shall be temperature resistant.

The driver contact area of the seat back and seat cushion shall be covered in a stain and wear resistant type, fabric upholstery material. The remaining areas shall be covered using a heavy weight (minimum 42 ounces) prevail upholstery material.

The driver's seat shall be adjustable fore and aft a minimum of six inches (6"), up and down a minimum of four (4) inches, and shall include a minimum of fifteen (15) degree tilt back adjustability. All adjustment controls shall be designed for finger type adjustments and shall not require the use of tools. There shall be a minimum of ten inches (10") clearance between the steering wheel and driver's seat back regardless of seat or wheel position.

**DRIVER'S SEAT BELT** - A Type 2 combination lap belt/shoulder harness, meeting SAE and FMVSS specifications, shall be provided for the driver. This assembly shall incorporate an Emergency Locking Retractor (ELR) for the shoulder harness and lap belt and a single push button release mounted on the right side at seat level.

Installation of this belt shall be accomplished by use of a metal bracket to move the belt closer to the seat cushion and improve driver accessibility to the belt ends. The right side of the belt shall be guided or anchored at the seat frame, using a metal loop or similar device, so as to prevent the driver from sliding sideways off the seat.

#### **35. SEATS, PASSENGER**

Seats shall be forward facing, two passenger high back cloth activity style seats.

All materials used in the construction of seats must meet the requirements of the 2010 National School Transportation Specifications and Procedures and FMVSS 302, Flammability of Interior Materials.

### **36. STEERING**

All chassis shall be equipped with power steering of the integral type and gear driven hydraulic pump. Steering column shall be equipped with tilt function and shall provide for easy adjustment. Any u-joint needing lubrication used in the steering shaft, must be able to be lubricated using normal lubrication equipment, and shall be accessible without removing any panels.

### **37. STOP ARM**

Stop arm shall not be installed.

### **38. STORAGE, INTERIOR OVERHEAD**

Provide interior enclosed overhead storage that includes being covered in vinyl. Inside storage compartments shall be lighted. Reading lights mounted under the storage unit shall also be provided for each passenger with a master override switch by driver.

### **39. STORAGE, UNDERNEATH LOCKABLE**

Provide full length and width, underbody luggage storage compartments. These compartments shall be key lockable, shall have interior lights and shall be sealed to be dust proof and watertight.

### **40. TINTED WINDOWS**

All side windows shall be tinted AS-3 glass (light transmittance 28% to 31%) with black anodized or powder coated window frames.

### **41. TIRES AND WHEELS/RIMS**

All chassis shall be equipped with two (2) 11R x 22.5 14 ply front and four (4) 11R x 22.5 14 ply rear (highway tread), ten (10) hole disc wheels. Wheels shall be hub pilot type with five (5) hand holes. Steer axle and outer drive axle shall be polished aluminum Alcoa.

All tires/rim assemblies shall be dynamically balanced. Any tire not balance correctable with less than twenty (20) ounces of weight shall be replaced. All tires shall be evaluated during pre-delivery service road test. Any tire deemed out of balance during road test shall be corrected based on the guidelines as stated above.

## 42. TRANSMISSION

The transmission shall be fully automatic, electronically controlled and have a minimum of six (6) forward ratios, neutral, and reverse (Allison 3000 series) and shall include a 5-year warranty. All forward gear changes, plus forward to reverse, shall incorporate down shift inhibitors. The transmission shall have a heavy-duty cooler installed. The transmission shall incorporate an integral type filter that is externally accessible without removal of the transmission oil pan. The transmission assembly must be installed so that it can be removed for service without cutting of cross members. Lube shall be synthetic oil.

## 43. WINDSHIELD WIPERS AND WASHERS

**WINDSHIELD WIPERS** - The body shall be equipped with heavy duty, two (2) speed with intermittent, electric windshield wipers. Wiper motor shall be easily accessible for maintenance and repair. A single switch shall control the wiper motor(s). The control system for the wipers shall be wired in such a manner that will provide for automatically turning the headlights and running lights on and off in conjunction with the windshield wipers.

**WINDSHIELD WASHERS** - The body shall be equipped with an electrically operated windshield washer system. The nozzles for this system shall be mounted on the windshield wiper arm and shall include all appropriate plumbing complying with SAE J1037. The windshield washer fluid reservoir shall be constructed of rigid plastic and have a minimum capacity of two (2) quarts. This reservoir shall be mounted in a position that is easily accessible for refilling.

## 44. WIRING

All wiring shall conform to current standards of Society of Automotive Engineers (SAE) and shall have an ampacity rating that is at least twenty-five percent (25%) greater than the design load of the circuit.

All chassis shall be wired so that the only current draw allowable, when the ignition switch is in the off position is from the brake lights, hazard lights, and horns. Electronic components (example: voltage regulator) having constant current draw of less than 20 mille amperes are excluded from this requirement. A manually resettable circuit breaker (minimum 150 amp) located in the electrical access panel shall be provided to protect all body feeds.

**CIRCUIT IDENTIFICATION** – All circuits shall be identified by a minimum of two (2) separate methods, which shall be any combination of circuit number, circuit color, or circuit name. Circuit colors shall be those specified by SAE standards or the harness manufacturer's standard, unless specified herein. Circuit name identification shall be standard nomenclature or abbreviations.

Bismarck Public Schools  
Bismarck, North Dakota

**Bid Tabulation Sheet**

Bid Opening for Activity School Bus, Wednesday January 18, 2017,  
1:00 PM local time, at Facilities & Transportation Office 705 S 9th St Bismarck  
1 - Rear Engine White Activity Bus

The undersigned being familiar with the requirements of the Federal Motor Vehicle Safety Standards (FMVSS) for School Bus Construction. The quality of materials and workmanship shall result in school buses meeting all FMVSS and be ready for operation ("Ready to Use") for the intended application, with all equipment functioning properly and without substantive defects. By submission of signed bid, vendor certifies that the equipment it proposes to furnish complies with all specifications listed herein. Substitutions for specified items must be approved by BPS in writing, prior to submission of bid. It is the responsibility of the bidder to provide adequate information for evaluating the acceptability of any and all items they wish to offer as substitutes.

<b><u>Item #</u></b>	<b><u>Description</u></b>	<b><u>Quantity</u></b>	<b><u>Dollars in Numbers</u></b>
A	Rear Engine White Activity Bus	Harlow's	
A	Rear Engine White Activity Bus	Trucks of Bismarck	
A	Rear Engine White Activity Bus	Hartley's	

**Recommended Bid Total**

Bismarck Public Schools  
Activity Bus  
Bismarck, North Dakota

**REQUEST FOR APPROVAL OF SUBSTITUTION**

Equipment: \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Bid Date: \_\_\_\_\_

We hereby submit for your consideration the following product instead of the specified item for the above project. (This form is required for each item requested for approval)

<u>ITEM #</u>	<u>DESCRIPTION</u>
_____	_____

Proposed Substitution \_\_\_\_\_

Drawings, specifications (including dimensions of the substitution if needed) along with warranty information must be received to be considered for substitution.

**SUBMITTED BY:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Firm

\_\_\_\_\_  
Address

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone

**RESPONSE OF THE OWNER:**

\_\_\_\_\_ Request is approved subject to compliance with the Specification

\_\_\_\_\_ Approval cannot be granted because this request did not reach this office within the specified time.

\_\_\_\_\_ Approval cannot be granted at this time.

\_\_\_\_\_ Prior approval for this substitution is not required by the Specification.

By: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_