



## BOCK CONSULTING

### Job Analysis

Job Title	Bus Driver	Worker	
DOT Number	913.463-010	Claim Number	
Employer	Highline School District	Employer Phone #	206 631-7502
Employer Contact	Devin Denney, Director of Transportation	Date of Analysis	March 26, 2015

☒ Job of Injury   ☐ Transitional Job   ☐ New Job   ☒ 2-8 hours per day   ☒ 5 days per week.

#### Job Description, Essential Functions, Tasks and Skills:

Highline School District operates a fleet of approximately 100 school buses. Highline has approximately 89 drivers, 9 substitute drivers, and 10-25 monitors (who assist the drivers in specific situations<sup>1</sup>). The primary job of a bus driver is to transport students between pick-up points and a specific school, over specified routes, according to an established time schedule.



All of the bus drivers must be able to take on and successfully accomplish any task asked of them in their capacity as a bus driver. This means every driver, particularly substitute drivers, needs to be able to cover any route and accomplish the tasks assigned to the route. This is particularly important and applicable in driving routes with special needs students and students with behavior issues.

A bus driver is expected to have and maintain a good driving record prior to and throughout their tenure as a bus driver. While employed, driver's driving record abstracts are collected by the District and reviewed by Highline officials twice a year. Routes are bid out to the drivers at the beginning of each school year based upon driver seniority. Many factors may influence which route a driver selects. These may include favorite kids, a favorite school, a favorite Principal, or favorite area to drive. The last remaining route is given to the last remaining driver. The buses are bid out as well; however, the bus selection process also takes into account the specific needs of a particular

<sup>1</sup> It is standard policy under Highline School District guidelines that if a bus has more than 4 wheelchairs, or 6 students with behavior issues, a monitor is assigned to ride with the driver on the route.



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route. Once a driver chooses a bus, that bus is generally assigned to that driver for the year. If student needs dictate a change of bus/run during the school year, District/Department management has the right to make changes.

Drivers can drive from 2.0 to 8 hours a day. The drivers' schedules generally consist of two to three hours of routes in the morning (6:30-6:45 to 9:30-9:45), and three hours in the afternoon (1:30-1:45 to 4:40-4:45), with potential responsibilities in between (for half-day reschedule: 10-12 or 11-1), or for afternoon activities (with after school activities or sports, some drivers can be out on the road until 6:00). A typical schedule covers pick up and return trips to each of the three school levels (high school, middle school, and elementary school).

Each morning before the buses are used to pick up passengers, the bus drivers have to complete a series of exterior and interior checks to make sure all of the systems on the bus are functioning properly. This check conforms to the CDL pre-trip inspection guidelines and is performed up to 3 times per day:

- 1) The driver will start the bus and make sure the brakes are set. Part of the pre-trip inspection includes making sure all of the brake systems are functioning properly. This includes utilizing their right leg to push down and hold the brake for 1 min and then pumping the brakes.
- 2) Exterior Check:
  - a) The driver exits the bus and makes sure all of the lights are functioning properly. This includes the headlights, the running lights, signal lights, and brake lights.
  - b) The driver opens the left and right side emergency exit doors and the rear emergency exit door (with the driver's "off" or weaker hand).
  - c) A hammer is used to pound the tires to identify any issues regarding the air pressure in the tires. This check requires the driver to stoop next to the bus and swing the hammer. This is particularly important for the four "dually" wheels on the rear axle, though the front tires may also be tested with the hammer to check for tire pressure issues.
- 3) Interior Check:
  - a) The driver enters the bus and walks down the aisle of the bus pushing on the back of each seat to determine if all of the seats are secured to the floor. The driver then returns down the aisle pushing on the back of each seat make sure the seats are secured in the opposite direction.
  - b) The driver is responsible for making sure that the seat cushions on all of the seats are securely fastened to the seat frame.
  - c) The emergency exit doors are tested from the inside by opening each of the exits (using the off hand). It takes approximately 10 pounds of force to open each of the three inside emergency exit doors using the interior releases.
  - d) The ceiling vents/emergency exits are opened. The ceiling vents/emergency exits take



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approximately 45 pounds of force to open. If the driver cannot reach the overhead vent, the driver may have to stand on the nearest seats to open the vent. It is 78 inches to the ceiling vent in the middle of bus.

- e) The drivers visually inspect the bus looking for water leaks and other damage inside the bus.
- 4) If the bus does not pass all of these inspection steps, maintenance is called to fix the problem. If the maintenance crew cannot complete the repair in a reasonable amount of time, the driver will be assigned one of the spare buses, and complete a new inspection on the spare bus.

When completing the pre-trip inspection, the bus driver must complete a checklist for documentation purposes. In addition, drivers must document and report the daily routes and student loads they drive on a weekly basis. In addition, there are numerous other forms that may be necessary for the driver to complete.<sup>2</sup>

When driving the bus on the road, the driver is expected to obey all laws and keep the safety of the students the number one priority. The driver is active while driving the bus. The bus driver should constantly be looking around, using their sight and hearing to watch for students entering and leaving the bus, other pedestrians, other vehicles, and other obstacles. The ability for the bus driver to look around (using his or her neck) and identify potential issues is critical.

When a driver is finished with a route, they are asked to get up from their seat and check the bus for students, items left on the bus, or other issues. This routine check can take from one to three minutes. When picking students up from the schools, the drivers will typically arrive a little early to park the buses, and will typically get out of their buses and talk with the other drivers until it is time to leave on their routes.

When exiting the bus in an emergency situation, the students are trained to sit down on the floor of the bus and exit the bus from a seated position. Drivers are encouraged to help students exit the bus in an emergency situation as quickly as possible; this may mean helping students out of the bus. The front windows on the bus and the windows in the bus door will kick out if needed.

The drivers must completely wash the outside of their buses when they are dirty (which on average is approximately twice a month; although most bus drivers take their buses through the drive-through bus wash almost daily). Drivers are also expected to sweep out the buses every day, and mop the buses when the interior becomes dirty. Sweeping and mopping requires bending and squatting to reach all of the areas to clean.

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<sup>2</sup> These forms may include a timecard, a Vehicle Accident/Damage Report, an Employee Accident Report, a Student Accident Report, School Bus Stop Sign Violation report, and a Bus Conduct Report, among others.



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Bus fueling is a required task for the Highline bus drivers. Buses are powered by diesel and gasoline engines. A key card and a PIN code are used to identify the bus and driver, and unlock the pump allowing the driver to fuel the bus.

There are specific tasks the driver must perform when assisting students in wheelchairs:

- Wheelchair accessible buses have wheelchair lifts which allow the driver to load students in wheelchairs onto the bus. The wheelchair lifts are electric lifts that are mounted on the side of the bus near the back.
- In the bus, the wheelchairs are secured in place using four tie-downs (these straps need two hands to operate). The tie-down straps are made by Q'Straint (the models in the buses have automatic retractors).
- Electric wheelchairs are customarily turned off while in the bus. This means that the bus driver has to manually push or pull the wheelchairs inside the bus to maneuver them into the stalls. The electric wheelchairs can be heavy, and maneuvering the students may include partially lifting the wheelchairs into place.
- The students in the wheelchairs are secured into the wheelchair with a 4-point harness.

The driver must be able to open and close the engine compartment cover. There are several styles of engine compartment covers (front or back, depending on the style of the bus). There are also various types of latches used to secure the engine covers. Each style of engine compartment cover requires different physical requirements to operate; however, generally fine motor skills are necessary to release the latches on the covers, and up to 35 pounds of force may be necessary to open or close the covers. In addition, some of the buses with the engines in the rear have covers that may extend above the height the driver can reach. The engine compartment cover can be pulled down to reachable height using the ice scraper available in each bus (the ice scraper typically has a 24" to 30" handle).

Drivers must be able to chain-up own buses in winter. Chains weigh up to 40 pounds for each wheel.

The bus driver positions are union jobs.

**Machinery, Tools, Equipment, Personal Protective Equipment:**

There are various types and sizes of buses in the Highline District fleet. There are two basic styles of buses: 1) conventional-style buses (engine in front), and 2) transit-style buses (engine in front or in back). Standard lengths of buses are approximately 18', 25' and 38.5' (with some variation, primarily due to different models of busses being purchased over time by the District). The largest buses (approximately 38.5' long) can hold 78 third grade students, approximately 60 middle school



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students, and 50 to 55 high school students.

On the larger buses, the first step into a bus is typically 15" high, with interior steps being between 7" to 8" high. Step heights vary by bus.

All buses have automatic transmissions and power steering. Depending on the particular bus, the steering wheel may be relatively flat, or angled, much like a car. In either case, the steering wheels are generally larger in diameter than typically found in a passenger vehicle. In addition, the location and function of the control panels for the various systems on the bus vary by bus.

The parking brakes on the buses in the Highline fleet are activated mechanically with a foot pedal or are air brakes that are activated with a hand control.

Drivers are trained to adjust the driver's seat to their own body. Each seat has adjustments for height and will slide forward and backward. The District has tried to avoid the "air ride" seats because if they are not appropriately adjusted for the driver's weight, they may bounce too much, or bottom-out, and may cause injuries to the driver.

The buses are equipped with approximately seven mirrors for the driver to use. The drivers are trained to use the mirrors and not swivel in their seat to view their surroundings, but are taught to "rock-and-roll." The mirrors provide excellent visibility for the driver of the interior of the bus and the surrounding environment. Swing-out safety bars in the front of the bus are 8' long and are meant to keep students out in front of the bus where the drivers can see them.

None of the buses have air conditioning. The buses do have fans and windows that open to allow air to circulate.

Drivers are expected to keep their buses clean. For the outside, there is an automatic bus wash; however this automated wash will only clean the sides of the bus, and therefore the driver must clean the front and the back of the bus by hand. If the bus is completely washed by hand, drivers are expected to wash the buses as far up the bus as they can reach while on the ground with a long-handled brush. Drivers are expected to be able to fill up and dump out wash buckets that can hold up to approximately 5 gallons of water. The entire bucket does not need to be filled when washing.

As noted above, drivers are expected to fuel their own buses. The fuel pumps are Gasboy units with OPW nozzles (which weigh approximately 8 pounds). The "hold-open" capability of the nozzles was removed; therefore, the driver must grip the nozzle handle (which is approximately 6¼ inches in diameter) and trigger to keep the fuel flowing. This means the driver must squeeze and hold the trigger ~5 minutes while fueling the bus. The driver uses a hammer during the pre-trip inspection to test the air pressure in each of the tires.



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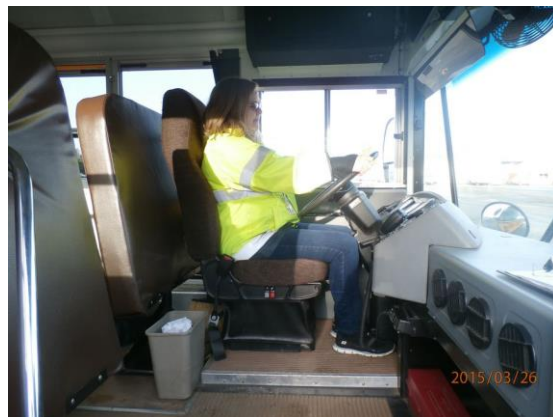
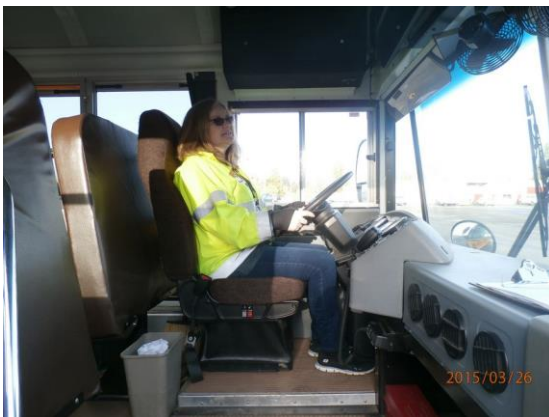
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The driver may have to use a fire extinguisher in the case of an emergency. During winter driving conditions, the driver may use an ice scraper to clear the windows, and in limited circumstances, may have to install chains on the rear tires of the bus.

Education / Training:

Prior to on the road bus driver training, a driver candidate must get a Department of Transportation ("DOT") physical, obtain a Department of Licensing ("DOL") five-year complete abstract of their driving record, and obtain a DOL permit. After some training with the District, the candidate is expected to obtain and maintain a Commercial Driver's License - Class B ("CDL-B"). Prior to actual employment, a driver must take a drug test and have an F.B.I. background check. Certification Requirements: CPR and first aid.



Seated with hands at the bottom and top of steering wheel.





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Entering / Exiting Bus



Opening/Closing Re-Compartment for Pre-Trip Inspection.



Opening / Closing Escape Hatch for Pre-Trip Inspection.



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Opening / Closing Escape Hatches on the side and rear of bus for Pre-Trip Inspection.



Steering wheel and seating area configuration.



Pulling open hood for Pre-Trip Inspection.





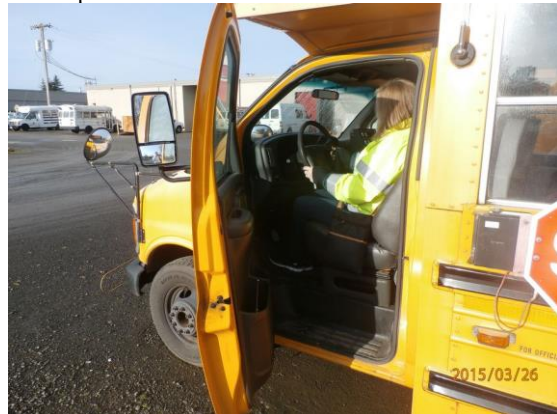
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Pushing Hood Open



ECAP Bus



Seatbelts / Restraints



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Driver's Seat / Operation of Radio to Call In.



Seated operation of Bus.



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**PHYSICAL DEMANDS**

**N/A:** Not Applicable

**S:** Seldom (1-10% of the time)

**O:** Occasional (10-30% of the time)

**F:** Frequent (30%-70% of the time)

**C:** Constant (Over 70% of the time)

**WNL:** Within Normal Limits (talking, hearing, etc.)

STRENGTH: ☐ Sedentary ☐ Light ☒ Medium ☐ Heavy ☐ Very Heavy  
Frequency Comments

Sitting	<b>C</b>	May be seated 6 to 7 hours a day; seated continuously while driving routes. Seats are adjustable for each driver. Seats may be air ride. Driver usually has 1-2 buses that they are assigned to after bid process that they can adjust seating as needed. However, per employer requirements, the Driver needs to be able to drive any bus in the lot. When safe to do so, worker can stand, stretch and adjust seating if necessary.
Standing	<b>O</b>	Cleaning interior and exterior of bus. Pre-trip inspections.
Walking	<b>O</b>	Pre-trip inspections (3x per day) and bus checks after each route driven.
Driving	<b>C</b>	All buses are equipped with power steering.
Lifting (1-40 pounds)	<b>S</b>	Drivers must be able to install chains for winter driving (may weigh approximately 40 pounds). Hoods.
Lifting (> 40 pounds)	<b>S</b>	In an extremely rare occasion, the driver may be called on to help evacuate students from the bus. This will typically be helping students seated on the floor of the bus from the emergency exit doors in the bus. However, there may be more lifting involved if a student is unable to move to an exit door, as may be the case if a student is in a wheelchair.
Carrying	<b>S</b>	Driver may carry flashlight, clipboard, fire extinguisher, or first aid box.
Pushing/Pulling (negligible to full body force)	<b>O</b>	While driving using large diameter steering wheel; shifting bus into and out of drive; brooms and mops are used to keep the interior clean; long-handled brushes are used in washing the exterior, rear engine compartment door, escape door latch, smaller bus engine hood. ECAP seat belts. Sometimes become twisted and are hard to pull over passenger.
Climbing Stairs/Ladders	<b>O</b>	Generally 3 to 4 steps into the bus (first step is the tallest). Driver should receive training on how to safely enter and exit bus.
Working at Heights/Balancing	<b>N/A</b>	
Bending at Waist	<b>S</b>	Sweeping/mopping the bus.
Bending Neck	<b>C</b>	Driver will constantly use the neck while driving and to see students entering, riding, and exiting the bus.
Twisting at Waist	<b>O</b>	Drivers are trained to use the mirrors on the bus to eliminate twisting.
Crouching/Kneeling	<b>S</b>	Needed to inspect the tires of the bus during pre-trip inspection, and in sweeping/mopping the bus.



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Crawling	N/A	
Reaching (below waist, at waist)	C	Reaching necessary while driving with 18 inch steering wheel, pressing buttons, accessing switches, sweeping/mopping the bus, cleaning exterior of bus. 24 inches from seat to steering wheel. 33.5 inch reach with right arm to open/close door at each stop.
Reaching (waist to shoulder, above shoulder)	S-O	Opening hood and rear compartment for pre-trip inspections, escape hatch opened 3x per day ~ 78 inches to reach. Accessing radio.
Handling/Grasping	C	20 % Pinch Grasp 80 % Whole Hand Grasp
Fine Finger Manipulation	O	Control knobs and buttons for bus operations, including entrance door, lights, wipers, and wheelchair lifts. Operating 2-way radio. Latches on engine compartments.
Talking	F	Student passengers, parents, and other drivers.
Hearing	C	Vital for safety of students.
Seeing	C	Vital for safety of students.
Writing	S	The Department requires certain forms to be completed.
Normal Job Site Hazards		Typical hazards of driving on the road; noise from students on bus and engine noise; no air conditioning in buses.

The above job analysis represents the requirements of a specific job based on personal observations, discussions with employer representatives, and/or workers. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective quantifiable data. For this reason, a "best estimate" may have been used when reporting physical demand frequencies.

Analysis was done on the job site? ☒ Yes ☐ No

Completed by Vocational Provider Craig Bock, M.A., CRC

Date 3/26/15 Signature of Vocational Provider

For the Employer Devin Denney Title Director of Transportation

Date 3/26/15 Signature Signature on file





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**FOR PHYSICIAN/EVALUATOR'S USE ONLY**

- ☐ The injured worker can perform the physical activities described in the job analysis and can return to work on \_\_\_\_\_
- ☐ The injured worker can perform the physical activities described in the job analysis on a part-time basis for \_\_\_\_\_ hours per day. The worker can be expected to progress to regular duties in \_\_\_\_\_ weeks/months.
- ☐ The injured worker can perform the described job, but only with the modifications/restrictions in the attached report and/or listed below. These modifications/restrictions are (check one):  
☐ Temporary for \_\_\_\_\_ weeks \_\_\_\_\_ months  
☐ Permanent
- ☐ The injured worker cannot perform the physical activities described in the job analysis based on the physical limitations in the attached report and/or listed below. These limitations are (check one):  
☐ Temporary for \_\_\_\_\_ Weeks \_\_\_\_\_ months  
☐ Permanent

COMMENTS:

Date \_\_\_\_\_ Physician/Evaluator's Signature \_\_\_\_\_

Physician Evaluator's Name Printed \_\_\_\_\_

PLEASE RETURN TO:

Fax Number: 425-823-7125

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