



## PRELIMINARY REPORT

### HIGHWAY

#### HWY18MH003

*The information in this report is preliminary and will be supplemented or corrected during the course of the investigation.*

On Tuesday, December 12, 2017, about 6:50 a.m. central standard time, a 2004 International school bus, occupied by a 74-year-old driver, was traveling southbound on 480th Street, a 24-foot-wide, two-lane gravel roadway near Oakland, in Pottawattamie County, Iowa. The driver turned to the right into a driveway in the 17000 block of 480th Street and picked up his first passenger, a 16-year-old student. As the bus backed out of the driveway, its right rear tandem wheels crossed a 3-foot-wide earthen strip adjacent to the roadway and dropped into a 3-foot-deep ditch. Although still in contact with the ground, the right rear drive wheels lost traction, and the bus became stuck with about half of the vehicle positioned across the gravel roadway. The driver attempted to move the bus forward out of the ditch. As he was doing so, a fire began in the engine compartment and spread into the passenger compartment. Sometime during this event, the grass and vegetation at the rear of the school bus also caught fire. For unknown reasons, the driver and student passenger did not exit the school bus. Both occupants died as a result of the fire. (See figures 1 and 2 for images of the school bus at final rest.)



***Figure 1. Right side of school bus at final rest.***  
*(Source: Pottawattamie County Sheriff's Office)*



***Figure 2. Left rear of school bus at final rest.***  
*(Source: Pottawattamie County Sheriff's Office)*

The school bus, which was owned and operated by the Riverside Community School District, went into service in 2005. NTSB investigators found that the vehicle had potentially been subject to four recall campaigns. It has been determined that three of the recalls applied to this school bus. (A fourth recall, addressing a power steering pump failure that could cause a fire, did not apply to this specific bus model.) The three applicable recalls were designed to correct issues with the following items:

- (1) A sensor used in the antilock brake system.
- (2) A sensor used in the side-mounted swing-out stop arm.
- (3) The wiring harness to the stepwell heater blower motor.

Investigators have confirmed that these three recalls were performed.

NTSB investigators, with personnel from the Pottawattamie County Sheriff's Office, documented the interior and exterior of the school bus and the physical characteristics of the scene. The school bus was equipped with a continuous onboard video recording system, manufactured by REI. The recording system was severely damaged by the fire, and the NTSB Recorders Laboratory determined that there were no recoverable data. As the investigation continues, additional examinations of vehicle components and post-fire evidence will be performed to determine the potential origin of the fire and its propagation. Vehicle inspection requirements, maintenance record requirements, and oversight of school bus operations will also be addressed, as well as human performance and survival factors issues related to the crash and fire. All aspects of the crash remain under investigation to determine the probable cause.