REGULATION 28: REPORT TO PREVENT FUTURE DEATHS

	THIS REPORT IS BEING SENT TO: **1. Transport Research Laboratory** **2. Vehicle Operator Services Agency** **3. Optare**
1	**CORONER** I am **Timothy Harvey Ratcliffe**, Assistant Coroner for the Coroner Area of West Yorkshire (Western).
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013.
3	**INVESTIGATION and INQUEST** On 6th November 2013 I commenced an investigation into the death of Muriel Dawson, aged 90 years. The investigation concluded at the end of the inquest on 11th April 2014. The conclusion of the inquest was a narrative verdict as follows: *"Muriel Dawson suffered an injury to her spine, fracturing her lumbar vertebrae L1/2, as the result of her being thrown forward from her seat in an Optare 25/28 seater public service vehicle travelling at under 20 miles per hour which braked suddenly to avoid the possibility of contact with a car preparing to enter into the roadway from a private drive. She had been seated in an aisle seat towards the front of the vehicle with nothing to restrain her forward movement. No seat belt was fitted to her seat. Other passengers in the bus were also thrown from their seats but did not suffer serious injury. The fracture of her vertebrae and associated trauma led to her death shortly after the incident",* the cause of death being 1(a) Complete fracture lumbar vertebra (L1/2) due to 1(b) Osteoporosis.
4	**CIRCUMSTANCES OF THE DEATH** These are as shown in the narrative conclusion in Box 3 above.
5	**CORONER'S CONCERNS** During the course of the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows. – (1) My findings were, as summarised in the narrative conclusion, that Muriel Dawson was travelling on an Optare "hopper" type scheduled service bus (narrow model) and the evidence to the Coroner's court indicated that the profile of passengers on such a vehicle would overwhelmingly be elderly. The evidence given was to the effect that the design of the vehicle provides a compromise between safety and convenience as it allows for standing passengers, seated passengers and provision for a wheelchair. The design is such that the seat in which Mrs. Dawson was seated at the time of the incident has no form of restraint should there be a violent forward motion exerted on passengers, eg. by an emergency stop. The seat position (viewed from the front facing back) is on the right hand side and is in the third row. It is the aisle seat of the first double seats, the two rows in front being single seats on that side.

	(2) It is understood that these vehicles are type-approved and the operator has not made modifications to them and thus the original design and approval of the vehicle is universally that which is in regular use. Seat belts are not required to be fitted to any seats. (3) The evidence to the inquest was that this vehicle had to stop suddenly; the brakes were correctly applied, but there was nothing to prevent Mrs. Dawson being thrown forward and she lost her life as a result of hitting the front panel of the bus having slid the remaining length of the vehicle. Her death was due to the impact with the vehicle fracturing her spine. (4) It appeared from evidence that, still consistent with convenience, disabled access and gangway width, a floor to ceiling pole with horizontal bar, or some similar restraining construction could have been applied to the area immediately in front of her seat. (5) It is appreciated that the backs of seats, bars and similar elements of the interior of a vehicle can cause injury in the event of a sudden stop, but I considered, based on the evidence given, that some similar design feature of the vehicle as mentioned in (4) above could, and probably would, have prevented Mrs. Dawson being thrown forward for such distance and with such momentum as to cause her death. (6) It appears from the evidence, albeit indirectly reported to the Coroner at the inquest, that other operators have expressed concerns with the current design, but feel there is nothing they can do in a type-approved vehicle. I am concerned that the type-approval has given insufficient weight to the risk of death or serious injury.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you have the power to take such action.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report. I, the Coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner. I am also under a duty to send the Chief Coroner a copy of your response. The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	**17th April 2014** **Signed:** **Timothy Harvey Ratcliffe**