Office of the Chief Coroner

Bureau du coroner en chef

# Verdict of Inquest Jury
# Verdict du jury de l'enquête

**Coroners Act - Province of Ontario**
**Loi sur les coroners - Province de l'Ontario**

We the undersigned / Nous soussignés,

| | | |
|---|---|---|
| Douglas Nelson Wilson | of / de | Ottawa, Ontario |
| Paul G.B. Fenton | of / de | Ottawa, Ontario |
| Annette Bose | of / de | Ottawa, Ontario |
| Shamil Deus | of / de | Ottawa, Ontario |
| Paul Pilon, PhD | of / de | Ottawa, Ontario |

the jury serving on the inquest into the death(s) of / membres dûment assermentés du jury à l'enquête sur le décès de:

| Surname / Nom de famille | Given Names / Prénoms | Aged / à l'âge de |
|---|---|---|
| Booth | Judy | 57 |
| Thomlinson | Bruce | 56 |
| Van Beek | Anthonia | 65 |

held at / tenue à Ottawa, Ontario from / du April 2, 2025 to / au May 1, 2025

By / Par Dr. Louise McNaughton-Filion Presiding Officer for Ontario / Président de séance pour l'Ontario

having been duly sworn/affirmed, have inquired into and determined the following:
avons fait enquête dans l'affaire et avons conclu ce qui suit:

| | |
|---|---|
| Name of Deceased / Nom du défunt | Judy Booth |
| Date of Death / Date du décès | January 11, 2019 |
| Place of Death / Lieu du décès | Westboro Transitway Station, Ottawa |
| Cause of Death / Cause du décès | Multiple Blunt Force Injuries |
| By What Means / Circonstances du décès | Accident |

| | |
|---|---|
| Name of Deceased / Nom du défunt | Bruce Thomlinson |
| Date of Death / Date du décès | January 11, 2019 |
| Place of Death / Lieu du décès | The Ottawa Hospital – Civic Campus |
| Cause of Death / Cause du décès | Multiple Blunt Force Injuries |
| By What Means / Circonstances du décès | Accident |

| | |
|---|---|
| Name of Deceased / Nom du défunt | Anthonia Van Beek |
| Date of Death / Date du décès | January 11, 2019 |
| Place of Death / Lieu du décès | The Ottawa Hospital – Civic Campus |
| Cause of Death / Cause du décès | Multiple Blunt Force Injuries |
| By What Means / Circonstances du décès | Accident |

affirmed at inquest

Original signed* by Foreperson /
Original signé* par le contremaître

*In-Person Inquests Only / Enquêtes en personne uniquement*

affirmed at inquest

affirmed at inquest

affirmed at inquest

affirmed at inquest

Original signed* by jurors / Original signé* par les jurés

The verdict was received on
Ce verdict a été reçu le May 1, 2025

Dr. Louise McNaughton-Filion

Presiding Officer's Name (Please print) /
Nom du président (en lettres moulées)

Date Signed / Date de la signature

Louise McNaughton-Filion

Digitally signed by Louise McNaughton-Filion
Date: 2025.05.01 15:56:13 -04'00'

Signature / Signature

We, the jury, wish to make the following recommendations: (see following page)
Nous, membres du jury, formulons les recommandations suivantes : (voir page suivante)

Office of the
Chief Coroner

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coroner en chef

# Verdict of Inquest Jury
# Verdict du jury de l'enquête

Coroners Act - Province of Ontario
Loi sur les coroners - Province de l'Ontario

**Inquest into the death(s) of:**
**L'enquête sur le décès de:**

| | Name of Deceased / Nom du défunt |
|---|---|
| | Judy Booth |
| | Bruce Thomlinson |
| | Anthonia Van Beek |

**JURY RECOMMENDATIONS**
**RECOMMANDATIONS DU JURY**

**To the City of Ottawa ("the City"):**

*Guiding Principles*

1. The City shall ensure that all decisions regarding public transit consider safety as the prime concern by adopting the following measures:

   a. All decisions regarding fleets, infrastructure and passengers should be viewed through a safety lens, with consideration of a safe systems approach at planning, implementation and maintenance stages.

   b. All safety decisions should be actioned in a timely, coordinated manner. To this end, automated alarms or a "bring forward system" should be implemented for all safety decisions.

   c. A responsible person should be designated for the tracking of any safety initiatives or responses, and these initiatives and responses should be reported on a regular basis to a high level of authority, with clear accountability assigned.

   d. Key Performance Indicators for safety should be reviewed at the highest level of Ottawa transit decision making on a regular basis, with a focus on continuous improvement.

*Infrastructure*

2. The City should reduce the approach speed to transit stations located on transitways to 30 km/hr until such time as the following conditions are met:

   a. Canopies of stations with a lateral offset less than three (3) meters from the face of the curb are either removed or replaced with a frangible structure; and,

   b. Physical countermeasures, such as tapered concrete barriers or other form of guardrail, are installed to divert an errant bus away from waiting transit customers.

3. The City should make use of traffic speed reduction strategies designed to slow down vehicles as they approach a transit station along transitways.

4. The City should assess all bus routes on the transitway for double-decker buses for potential intrusion hazards, both by obstructions on the carriageway and by obstructions that are within a three (3) metre "clear zone".

5. The City should install radar speed signs on all bus transitways in order to encourage speed limit compliance specifically where the speed limit transitions to a lower speed limit (e.g., approaching a bus shelter).

6. The City should amend the Transitway and Station Design Guidelines on a regular basis to incorporate developments in best safety practices, including Ministry of Transportation and Transit Association of Canada Guidelines, where applicable.

7. For all transitway construction projects, the contractor and contract administrator should identify and discuss any safety considerations at the preconstruction meeting and record the information in the minutes of that meeting, so that they can be appropriately tracked and addressed as the project progresses. A responsible person should be identified to oversee this task.

8. Where a construction project involves temporary pavement markings, the following steps must be taken:

    a. The Contract Administrator is to remind the contractor of the requirement to physically remove pavement markings via the issuance of a site-specific instruction.

    b. Construction Inspector is to be present on-site when the contractor removes the markings to ensure the work is performed in accordance with the contract.

9. The City must identify a transit planning representative responsible for attending the site following the completion of a transitway construction project to ensure the path is clear and safe for a bus to travel on before resuming normal operations.

10. The City should conduct proactive safety inspections of transitways at a fixed regular interval to identify safety hazards such as potentially misleading directional lines from previous construction projects. The interval for inspections should be at a minimum yearly.

11. The City should ensure appropriate management/removal of snow on the approach to transit stations along the transitways.

12. The City should ensure that their response reports to road safety audits are produced in a timely manner and provided directly to the road safety auditors who conducted the initial road safety audit.

13. The City should incorporate the perspective of bus operators in all road safety audits.

*Training*

14. During New Bus Operator Training ("NBOT"), the City should assess new bus operators for proficiency on all bus types before they are permitted to operate each bus type with passengers.

15. To allow for feedback, additional guidance and support, the City should expand the bus operator mentorship program to ensure that:

    a. Where operationally feasible, a qualified mentor should be present to observe trainees driving each type of bus towards the end of New Bus Operator Training ("NBOT"); and,

    b. New bus operators, during the first three months of their probationary period, have a qualified mentor present to observe them driving each type of bus in revenue service for at least one shift.

16. The City should enhance current New Bus Operator Training ("NBOT"), providing trainees with practical in-vehicle training and assessment on emergency braking on all bus types.

17. The City should ensure that Personal Electronic Device Operational Requirement #BPTO-S001-01-OREQ is specifically reviewed during New Bus Operator Training ("NBOT") and on an annual basis thereafter.

18. The City should introduce scenario-based training into New Bus Operator Training ("NBOT") and Remedial Skills Building Training by addressing the circumstances of previous collisions in a trauma-informed manner.

19. The City should introduce training to the New Bus Operator Training ("NBOT") Program designed to ensure that new drivers are familiar with the City's transit routes. The level of training required can be based on drivers' existing familiarity navigating the city.

20. The City should continue to encourage the hiring of individuals who have experience operating buses or other commercial vehicles.

21. The City should continue to include comprehensive training focused on the risks associated with distraction, fatigue and other human factors in the New Bus Operator Training ("NBOT") Program.

22. For Remedial Skills Building Training following a serious collision, the City should require continued follow up of operator performance to assess the need for further training, including through on-road observations, on-road assessments and telematics, as appropriate.

23. The City should examine the feasibility of upgrades or replacement of the training simulator and reintroduce simulator training as a component of:

    a. New Bus Operator Training ("NBOT"); and

    b. Remedial Skills Development Training following a collision, including the recreation of specific collision conditions and assessment of relevant skills.

24. The City should introduce dedicated buses for training, to ensure there is equal opportunity to train on all types of buses in service and during all hours where service may be offered, such as peak service hours. The total amount of driving time should be no less than is currently provided, and the amount of driving time on each model should be consistent from course to course.

25. The City should establish a separate evaluation procedure for probationary operators following a serious preventable collision. Prior to the probationary operator returning to service, the operator shall complete professional skills building training that includes a minimum of 5 days of training incorporating defensive driving skills and other skills identified through the collision investigation. The professional skills building training plan shall be approved by the Chief Safety Officer.

*Safety Oversight*

26. The City should promote a dedicated, 24/7 means of contact for members of the public to report any transit safety concerns. This means of contact should be advertised on buses, at bus stations, and, to the extent feasible, on Presto Cards, amongst other options.

27. The City should increase driver license abstract checks for transit operators from twice a month to daily, for the purpose of safety oversight.

28. The City should post a notice on all transit buses for the operator and members of the public that communicates in appropriate language and/or infographic, for each intended audience, the duties laid out in Personal Electronic Device Operational Requirement # BPTO-S001-01-OREQ.

29. The City should conduct an annual safety audit examining the implications of new or modified recommendations and/or regulations relating to transitway infrastructure and transit vehicles.

*Safety Data Collection and Analysis*

30. The City should continue to ensure that they utilize a data-driven approach to risk prevention.

31. The City should conduct an analysis of operator incidents, such as collisions, infractions, hard braking, or other non-safe vehicle handling, to assess whether new bus operators pose an elevated risk in general, with specific bus types or routes. The results of this analysis should inform updates to training, where applicable.

32. The City should develop a standard for the volume and frequency of random radar speed tests to be conducted along all transitways using handheld radar devices. The Chief Safety Officer should include the analysis of this data as part of the assessments of safety trends.

33. The City should designate a multidisciplinary team that is well versed in traffic safety to conduct root cause analyses of future serious collisions involving OC Transpo buses, based on a safe systems approach. Each root cause analysis should consider and document collision causes, countermeasures, and recommendations for safety improvement, and should be reported to the Chief Safety Officer.

34. The City should install telematics, similar to Geotab telematics, on at least a sample of buses such that it provides reliable and valid metrics to be used for safety purposes. This data should be regularly tracked by an accountable member of the governance team.

35. The City should investigate, with a view to utilizing telematics, operator-facing cameras, or other technological options that would allow for real-time feedback to transit operators regarding potential distraction, fatigue and unsafe driving behaviour.

36. The City should install operator-facing cameras on all OC Transpo buses to be used for safety purposes, while ensuring appropriate protections for employees' privacy. This data should be regularly tracked by an accountable member of the governance team. OC Transpo can make use of the *Locomotive Voice and Video Recorder Regulations* under the *Railway Safety Act* as guidance for the implementation of this initiative.

*Driver Assistance Technology*

37. The City should monitor speed assist systems to ensure OC Transpo is aware of new and emerging technologies that may improve transit safety.

38. In order to incentivize transit bus manufacturers to develop driver assist technologies for future use by OC Transpo and other municipal bus transit operators, the City should collaborate with other municipal bus transit operators to develop bus safety standards that endorse the use of such technologies and ensure that such standards are broadly communicated to transit bus manufacturers. Such technologies should include, but not be limited to speed assist, lane support and multi-collision braking systems, as well as telematics that would allow for real-time feedback to transit operators regarding potential distraction, fatigue and unsafe driving behaviour.

**To the City of Ottawa and Ministry of Transportation ("the MTO"):**

39. The City should publish, in a transparent and accessible manner, available to the public and delivered to the Ministry of Transportation ("the MTO"), key performance indicators for reducing bus collisions.

**To Alexander Dennis Limited and the City of Ottawa ("the City"):**

40. Alexander Dennis Limited, in consultation with the City, should conduct a study regarding the effectiveness of barriers at the front upper deck of double-decker buses in preventing passenger ejections during collisions. If deemed effective, remedial measures should be undertaken to retrofit existing buses in the City's fleet.

**To the Ministry of Transportation ("the MTO"):**

*Commercial Vehicle Operator's Registration ("CVOR")*

41. Where a Commercial Vehicle Operator's Registration ("CVOR") certificate applies to an operator operating both public transit and other fleet vehicles, the MTO should require a breakdown and identification of Overall Violation Rates ("OVR") for public transit and other fleet vehicles separately, with separate triggers for warning letters, inspections and other interventions, in order to best track safe practices.

42. The MTO should publish, in a transparent and accessible manner, the Overall Violation Rates ("OVR") for municipal transit operators in a way that allows meaningful comparison.

43. The MTO should identify municipal transit operators that achieve high safety ratings and encourage them to mentor municipal transit operators with higher OVRs, with the intent of sharing best practices and lessons learned in the interest of public safety.

44. In consultation with municipal transit operators, the MTO should develop a standardized root cause analysis process for transit bus fatalities and other serious collisions, based on a safe systems approach. This standardized root cause analysis should require that all collision causes, countermeasures, and recommendations for improvement are considered and documented by a multidisciplinary team that is well versed in traffic safety.

*Driver Certification Program*

45. The MTO should establish mandatory minimum drive time requirements on each C class license vehicle in consultation with municipal transit operators participating in the Driver Certification Program ("DCP").

46. The MTO should amend the current Driver Certification Program ("DCP") policy to require mandatory minimum drive time requirements on each C class license vehicle that the trainee will operate following training.

47. The MTO should require that validation audits, compliance audits and "mystery shop audits" of public transit organizations participating in the Driver Certification Program ("DCP") are conducted by MTO staff or third-party auditors with specialized knowledge in operator training, transit safety, and adult learning.

48. The MTO should require Driver Certification Program ("DCP") audits to assess the quality as well as the completeness of the training against objectively measurable assessment criteria including operator performance, instructor proficiency and adult learning principles.

*Roadside Evaluation Manual (2018)*

49. The MTO should amend the current version of the Roadside Evaluation Manual to ensure that crash risk assessment incorporates both the estimation of likelihood of a collision (probability) and the severity of a collision (impact). Specifically, severity should be proportional to number of persons in a vehicle.

*Operator-Facing Cameras*

50. The MTO should consider adopting mandatory standards for operator-facing cameras on municipal transit buses, similar to the *Locomotive Voice and Video Recorder Regulations* under the *Railway Safety Act* administered by Transport Canada.

*Fit for Duty/ Hours of Service*

51. The MTO should establish a standard for municipal transit bus operations that creates a shared responsibility to avoid unsafe driving related to fatigue. This standard should include robust controls for duty and rest periods, fatigue management plans and self-assessment and reporting without fear or reprisal, similar to the *Duty and Rest Period Rules for Railway Operating Employees* administered by Transport Canada.

**To the Government of Canada and the Transportation Safety Board ("TSB"):**

52. The Government of Canada should explore expanding the mandate of the Transportation Safety Board ("TSB") to require investigations into serious transit bus collision fatalities.

**To Transport Canada:**

*Research and Testing*

53. Transport Canada should continue to collaborate with educational partners, such as the University of Waterloo, in conducting research and testing related to the human body model and appropriate computerized crash test dummies, such that bus crash injuries can be better studied and prevented.

54. Transport Canada should conduct research and testing on any driver assistance technologies relating to municipal transit buses that are currently on the market or that come onto the market.

55. Transport Canada should endeavour to conduct more research into the safety considerations related to the use of double-decker buses.

*Operator-Facing Cameras*

56. Transport Canada should consider adopting mandatory standards for operator-facing cameras on federally regulated municipal transit agencies, similar to the *Locomotive Voice and Video Recorder Regulations* under the *Railway Safety Act.*

*Fit for Duty/ Hours of Service*

57. Transport Canada should establish a standard for federally regulated municipal transit bus operations that creates a shared responsibility to avoid unsafe driving related to fatigue. This standard should include robust controls for duty and rest periods, fatigue management plans, and self-assessment and reporting without fear of reprisal, similar to the *Duty and Rest Period Rules for Railway Operating Employees*.

**To the Canadian Urban Transit Association ("CUTA") and the Ontario Public Transit Association ("OPTA"):**

58. The Canadian Urban Transit Association ("CUTA") and the Ontario Public Transit Association ("OPTA") should add recent serious transit bus collisions as a standing item at meetings with a view to sharing lessons learned and developing best practices, using a safe systems approach.

59. In order to incentivize transit bus manufacturers to develop driver assistance technologies for future use by OC Transpo and other municipal bus transit operators, CUTA and OPTA should support members in developing bus safety standards that endorse the use of such technologies, including speed assist, lane support and multi-collision braking systems, similar to the work being done by Transport for London (UK).

**To the City of Ottawa ("the City"), the Province of Ontario ("the Province") and the Government of Canada:**

60. The City, the Province and the Government of Canada should seek, secure and maintain funding to support the implementation of the above recommendations.

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