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March 23, 1964

By Courier Service

l - Mr. Belmont
l - Mr. Rosen
l - Mr. Sullivan
l - Mr. Malley
l - Mr. Conrad

Homorable J. Lee Rankin General Counsel The President's Commission 200 Maryland Avenue, Northeast Washington, D. C.

Dear Mr. Rankin:

Reference is made to your letter dated March 18, 1964, in which it was requested that an examination be conducted to determine whether a marking on the windshield from the Presidential limousine was caused by an object striking the glass from in front of the vehicle or behind the vehicle.

The windshield has been obtained from the U.S. Secret Service and examined. It is laminated safety glass which consists of two pieces of glass bonded together by a plastic interlayer.

The windshield has been struck by an object at the point at which the cracks in the glass join. This point is within the area circled in red on the windshield, the cracks, which radiate from this point, are present only in the outer layer of glass. Minute fragments of glass are missing from the outside surface of the outer layer of glass at the confluence of the cracks. In addition, scrapings, Item CIV, were obtained from the inside surface of the windshield in the immediate area of the point of impact and these scrapings were identified as lead.

1 - Dallas (with copy of incoming) ADDENDUM FOR DALLAS: A separate Laboratory report relative to the examination of the windshield is being submitted to your office. REPRODUCED AT THE NATIONAL ARCHIVES

RELEASED PER P.L-102-526(JFK ACT) NARA TC DATE 3/19/10

Honorable J. Lee Rankin

When laminated glass is struck, the piece of glass opposite the side of impact is put into a state of tension which results in cracks in the glass opposite the side of impact. These cracks radiate from the point of impact.

It was therefore concluded that the cracks resulted from the windshield having been struck from the inside; that is, from the rear of the vehicle.

Sincerely yours.