

*Scale Model*

TO :

MR. CALLAHAN

DATE: 12-9-63

Tolson	_____
DeLoach	_____
Mohr	_____
Bishop	_____
Casper	_____
Callahan	_____
Conrad	_____
Felt	_____
Gale	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____
Gandy	_____

FROM :

L. J. GAUTHIER

#12

*[Handwritten signatures and initials]*

SUBJECT:

ASSASSINATION OF PRESIDENT JOHN F. KENNEDY  
AVAILABILITY OF SCALE MODELS  
AND AERIAL PHOTOGRAPHS TO ASSIST  
IN THE PRESENTATION OF FACTUAL  
INFORMATION CONTAINED IN FBI REPORTS

Re Assassination of President Kennedy &  
Re memo Gauthier to Belmont 12-1-63. *Letter of Lee*

In accordance with the Director's approval, a technical team from the Bureau's Exhibits Section (Gauthier, Hughes and Rose) compiled and gathered technical data at the site of the assassination and the place in the Dallas Police Department where Oswald was killed. A floor plan of the sixth floor of the Texas School Book Depository Building where the assassin opened fire on the Kennedy motorcade and a diagrammatic view of the police station ramp were completed and used in the FBI's investigative reports.

The full resources of the Exhibits Section are being constantly directed to the early completion of the following three-dimensional exhibits which may assist the Director in reporting to outside sources investigative facts surrounding the assassination of the President and the killing of Lee Harvey Oswald:

A. ASSASSINATION SITE (SEE ATTACHMENT 1)

This is an aerial photograph of the Dallas Triple Underpass taken at a height of approximately 3400 feet. A scale model 1/4" to the foot is being constructed to contain all the physical features

Enclosures  
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(11)

ENCLOSURE ATTACHED

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- 1 - Mr. Belmont (Enclosures) (Sent Direct)
- 1 - Mr. Mohr (Enclosures) (Sent Direct)
- 1 - Mr. Rosen (Enclosures) (Sent Direct)
- 1 - Mr. DeLoach (Enclosures) (Sent Direct)
- 1 - Mr. Evans (Enclosures) (Sent Direct)
- 1 - Mr. Conrad (Enclosures) (Sent Direct)
- 1 - Mr. Sullivan (Enclosures) (Sent Direct)
- 1 - Mr. Casper (Enclosures) (Sent Direct)
- 1 - Mr. Hughes (Enclosures) (Sent Direct)

22 DEC 27 1963

4 DEC 30 1963

*[Handwritten signatures and initials]*



that covered the assassination site in a 480 foot square area as delineated on the photograph. This scale model will be similar in construction to courtroom exhibits prepared by the FBI to assist courts and juries to clearly understand involved testimony. The existence of this scale model will make it possible for the Director to furnish to the President and his Commission an investigative media that will assist the President and others to clearly follow and understand the testimony of subpoenaed eyewitnesses to demonstrate (a) where they were and (b) what they saw under what circumstances. For example:

1. Secret Service personnel can, by using scale models of the Presidential car, Secret Service follow-up car and the Vice Presidential car, vividly unfold each Agent's version surrounding the moments before and after the shots were fired from the sixth floor window.
2. Witnesses will be able to demonstrate the movement of the motorcade around the corner of Main Street and along Houston Street turning left at Elm onto Thornton Freeway where some 150 feet further on, and moments later, the fatal shots were fired. All buildings abutting the parade route and the concrete structures in the park will be accurately located on the model.
3. The sixth floor of the Texas School Book Depository Building will be removable to permit observing the parade route from the assassin's point of view; and the location of the stairway used by the assassin in leaving the building; and where the assassin's rifle was discovered.
4. The model will make it possible for witnesses to demonstrate and establish where they were standing when certain movies were taken of the Presidential car and of the Texas School Book Depository Building.
5. It will be possible for witnesses to indicate on the model where on the Freeway shot one, two and three struck the occupants in the Presidential car.

Located below the sixth floor, approximately 75 feet away from the building and in line with the assassin's view of the Presidential car, is a tree known as



... The view from the assassin's window south on Houston Street is unobstructed for several blocks. Vehicles and pedestrians progressively become larger as they approach the Elm Street turn onto the Freeway viewed from the Depository Building. It is estimated that at 15 m.p.h. the Presidential motorcade covered the 350 feet on Houston Street toward the assassin's window in about 16 seconds (22 feet or one car length per second).

As the motorcade turned onto the Freeway at Elm Street, the Presidential car came within 80 feet downward range (45 degrees) from the assassin's position. It is believed that the assassin did not choose to fire on the approaching motorcade at the Elm Street turnoff because of the apparent advantage the police would have to quickly identify the direction of gun fire and the opportunity to seal off the escape route. The above-mentioned tree which rises to a height of approximately 35 feet (to third floor window sill) may have held up the assassin's gun fire until the motorcade came into clear view beyond the top of the tree some 150 feet after the Presidential car turned onto the Freeway from Elm Street intersection. It is estimated that 182 feet separated the assassin and the President when the first shot was fired just above the tree top.

6. The marks on the Freeway indicating where shots one, two and three were believed to have struck the Presidential car, have been noted and this information can be indicated on the model. From this information, it appears that shot one struck the President momentarily after he came within gun range when his car moved passed the tree top as viewed by the assassin. Shot number two which is believed to have struck Governor Connolly occurred after the car had traveled a distance of 95 feet at approximately 15 m.p.h. The markings on the Freeway indicated that shot number three which is believed to have struck the President occurred after the car had traveled another 45 feet. At 15 m.p.h. car moves forward at a speed of about 22 feet per second or one car length. The President's car is



21 feet long. Based upon this information, the second shot occurred about 4.35 seconds after the first shot was fired and the third shot occurred about 2.0 seconds after the second shot was fired. The total elapse time to fire shots two and three was approximately 6.4 seconds during which time the Presidential car traveling at 15 m.p.h. covered approximately 141 feet.

The model can be used by police investigators and Secret Service personnel to graphically demonstrate the above information.

**B. SITE WHERE OSWALD WAS KILLED (SEE ATTACHMENT 2)**

This is a diagramatic view of the garage area in the Dallas Police Department garage where Oswald was killed. This scale model (1/2" equals 1 foot) will accurately describe the interior of the garage permitting witnesses to use it not only to demonstrate pertinent information to the Commission but may also be used later in a court of law to assist the jury and court to clearly understand material facts surrounding the killing of Oswald by defendant Jack Ruby.

**C. AERIAL MAPS**

Aerial maps recently made of the pertinent areas will be available in suitable size to depict the assassination site in every direction. Route markings will indicate where the assassin boarded a bus after leaving the Depository Building, where he got off the bus and entered a cab, where he got out of the cab and walked to his rooming house, where he shot Officer Tippitt after leaving his rooming house and the direction it is believed he traveled to the Texas theatre where he was apprehended. There will also be enlarged close-up aerial views of each of the above points of interest.

**D. LOCATION OF BRIEFING AND CONFERENCE ROOM**

The scale model of the assassination site measures 10 feet square. The scale model of the police station ramp measures 11 feet long by 5 feet wide.

The Training Division advised that no In-Service Classes are scheduled until January 6, 1964, and that Classroom No. 2, Room 240, would be relatively free and could be made available for use as a briefing room for the Director. Tentative arrangements



have been made with Training Division for the use of the classrooms  
to set up the scale models and the aerial maps.

E. PRIORITY OF OPERATION

Every possible means of advancing the completion of these exhibits at the earliest possible moment is being constantly explored and put into operation whenever the accuracy of the end product will not be compromised. Employees of the Exhibits Section are assigned to the project 14 hours each day until the job is delivered which is expected to be 12-14-63.

RECOMMENDATION:

None; for information only.

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