

Footwear and Tire Examinations

Footwear impressions may yield information as to the type, make and approximate size of the shoe or boot. In some cases, conclusive identification can be made, linking a particular shoe to the crime scene impression.

Tire impressions sometimes permit identification of type and make of the tire. In some cases, a tire may be conclusively identified as the source of an impression.

I. Requesting Footwear and Tire Comparisons

Footwear and tire comparisons are typically conducted between a questioned impression and a known shoe or tire or standards taken from the known shoe or tire. Since standards are typically 2-dimensional impressions, they do not provide the detail necessary to fully analyze the effects of wear on the shoe or tire. For this and other reasons, it is important to have the shoe or tire to conduct a complete and accurate comparison.

A questioned impression does not need to contain the entire length of the shoe or tire before a comparison can be made. More important factors are the quality and size of the impression in which to find sufficient class or individual characteristics.

Footwear Submissions

- A.** Submit the footwear as it was received (do not clean).
- B.** Submit any standards, if taken, along with the known footwear.
- C.** Submit the questioned impression (casts, electrostatic lifts, powdered lifts).
- D.** Submit all photographic images, negatives and/or image files of all questioned impressions.

Note: Suspects may have more than one pair of the same make and model of shoe.

Tire Submissions

- A. Submit the tires and vehicle **through prior arrangements**.
- B. Submit any standards taken from the tires.
- C. Submit the questioned impression (casts, electrostatic lifts, powdered lifts).
- D. Submit relevant photographs (include the negatives or image files).

Tires should be submitted on the vehicle that they are mounted on if the vehicle is drivable. Arrangements should be made to find a similar vehicle if it is not.

Submitted vehicles will be released back to the agency at the earliest possible date **with or without the tires**. Since the tires may need to be retained for comparisons, replacement tires and wheels may need to be provided by the agency when the vehicle is picked up. **Prior arrangements are needed when submitting or picking up a vehicle. Questions concerning retention of the tires should be addressed when pick-up is arranged.**

II. Opinions Rendered By Examiners

Within the Wisconsin State Crime Laboratory System, the comparison of a questioned footwear or tire impression to a known standard will result in one of the following opinions:

- A. Not Suitable for Comparison
- B. Could Have Made
- C. Identification
- D. Elimination

Not Suitable for Comparison

This opinion refers to the absence of detail needed to make a meaningful comparison. This may be an issue of quality and clarity within the questioned impression or the submitted known standards. When this opinion refers specifically to the questioned impression, it is stating that no meaningful comparisons are possible.

However, if this opinion specifically refers to the known footwear standards, future comparisons may be possible if better standards are

received. To alleviate this potential problem, it is strongly recommended that the actual footwear to be compared be submitted whenever possible. Standards should only be submitted in lieu of actual footwear when there is no legal authority or consent to take the shoes.

Could Have Made

This opinion is an inclusion of the known footwear (as well as other similar shoes) as a source of the questioned impression. This opinion is offered when there is sufficient correspondence of class characteristics between the questioned impression and the known standard.

The “could have made” opinion can be very narrow or very broad in its inclusion depending upon the number of class characteristics found to be in agreement. These class characteristics include outsole design, design size, mold characteristics and the effects of wear.

A “could have made” opinion is a statement of inclusion and is circumstantial evidence. The more class characteristics found in agreement between the questioned impression and the known footwear or tire, the smaller the number of other shoes or tires that could have made this impression. For example, a comparison that corresponds in outsole design and design size eliminates all other shoes of the same outsole design but of a different design size.

A “could have made” opinion may also include the presence of identifying characteristics but in insufficient quantity or clarity to warrant identifying the footwear or tire. While the significance of this evidence is dependent on all attending circumstances, the weight given to this evidence is a matter for the jury to decide.

Identification

When enough individual characteristics of sufficient clarity are found to correspond between a questioned impression and the known standard, an “Identification” opinion is offered. In effect, this opinion excludes all other footwear or tires from having made the questioned impression.

Individual or accidental characteristics are recordable defects that occur to the shoe or tire post production. Cuts, scrapes, scratches, and tears are all examples of accidental characteristics. Additionally, the presence

of nails, glass and rocks retained by the shoe are other examples of accidental characteristics. Questioned footwear impressions recorded in fine soil or deposited on smooth hard surfaces are more likely to reveal accidental characteristics than are impressions in sand, snow or ice.

Since the identification of a shoe or tire relies on post production defects received during its use, the quicker the shoe or tire is found and preserved the better. The more the shoe is worn, the more likely the accidental characteristics will change.

Elimination

The “Elimination” opinion is offered when the questioned impression and the known footwear or tire differ in either class or accidental characteristics. This opinion eliminates the known shoe or tire from having made the questioned impression.