Latent Print Submission Guidelines

General Submission Guidelines

The Colorado Bureau of Investigation Forensic Services (CBIFS) recognizes that each case is distinctive. Our submission guidelines will address typical situations encountered by your agency but cannot speak to all of the unique circumstances that are often exclusive to a particular case. With this understanding, the CBIFS provides the following information to assist you in the submission of your evidence.

Reference Standards

- Reference standards or elimination prints are “known prints” taken from a specific individual.
- Elimination Prints of the victim(s) and/or other individuals who may have had legitimate access to the crime scene should be taken at the time the crime is reported.
- Reference standards from known suspects and victims should be submitted when possible.
- A Colorado State Identification (SID) number or FBI number listed on the RFLE can be provided in lieu of a hard copy of the elimination prints.
- If it is unknown whether a victim or suspect has a Colorado SID number, providing name and date of birth on the RFLE allows for CBIFS analysts to search the database for reference standards for that individual.
- Not all reference standards retained in the fingerprint databases are of high enough quality or contain all areas needed for a thorough comparison to a latent print. Understand that you may be required to obtain a more complete set of fingerprints from individuals if requested.

AFIS/NGI (Automated Fingerprint Identification System/Next Generation Identification)

In 1986, the first AFIS systems were created to develop databases of known fingerprints to aide in the searching of a large number of known prints utilizing mathematical algorithms. These databases consist of local and state regions that contain all known prints of individuals within that region. These individuals include anyone fingerprinted upon arrest or fingerprinted for an application process. In 1999, the FBI created the first version of an Integrated AFIS. IAFIS was a database that consisted of the known prints from all 50 states. The FBI has replaced their IAFIS system with the new Next Generation Identification (NGI) system that includes their known print database and other biometric identification services. All developed latent fingerprints with enough quality and quantity of detail can be entered and searched through the Colorado AFIS system and/or the FBI NGI system.

Latent Print Technology and Advancements

Latent print analysis is one of the oldest forensic disciplines. The use of black powder to visualize latents dates back to the late 1800s. Fingerprint powder is still one of the easiest, cheapest, and most effective ways to develop leads in a case, especially when used at the crime scene on items that cannot be transported to a laboratory. In recent years the implementation of fluorescent dye stains and fluorescent cyanoacrylate coupled with an alternate light source or LASER has increased the number of latents visualized during processing. The processing techniques used in the laboratory are often more sensitive and yield a higher quantity of latents than the use of black powder alone. We request that if an evidence item is easily transportable that it be submitted in its entirety (without any prior processing) to the laboratory so that an appropriate array of sequential processing may be applied.
Crimes Against Persons (i.e. homicides, sexual assaults, kidnappings, or assaults)

- Because of the complexity of cases involving crimes against persons, a pre-submission meeting is strongly recommended.
- Items may be worked in multiple rounds working the most probative evidence first.
- The evidence item is preferred to lifts/photos of the item if possible.

Property Crimes

- All items must be directly related to the crime. The item’s relationship to the crime must be clearly stated on the RFLE and/or cover letter.
- Items left behind by an alleged perpetrator may be suitable for latent print analysis based on the discretion of the analyst.
- The evidence item is preferred to lifts/photos of the item if possible.

Evidence to be Submitted

- Items with a smooth texture (glass, shiny metal, and plastic) typically yield better results than heavily textured items (gun grips, rubberized handles of tools, etc).
- Magazines from firearms typically yield more latent prints than firearms themselves. Please make sure to submit any magazines associated with the firearm being submitted.
- Paper items, even if briefly touched, are an excellent substrate for developing latent prints.
- Rubber (latex, nitrile, etc.) disposable type gloves can be a good source of latent prints and DNA.
- All syringes and drug packaging that is confirmed through laboratory analysis to contain powerful opiates such as (fentanyl, carfentanil, etc.) may not be processed due to the hazards associated with this type of evidence. Other items of evidence submitted in the case may be worked ahead of these items.

For a more extensive listing of evidence items and recommended exams please see the table located in the General Submission Guidelines document.

Summary

These latent print guidelines are recommendations of what should be included in the initial evidence submission to the CBIFS, but do not reflect what should or should not be collected at the crime scene. In support of your agency and upon request, the CBIFS will provide training on the proper collection and submission of latent prints. Please see our General Submission Guidelines for an overview of the submission process.

Please feel free to contact us at any time regarding your latent print submissions. It is our goal to ensure your understanding, educate you on situations that may be unfamiliar to your agency and to work collaboratively to ensure the citizens of Colorado are served at the highest possible level.