



# Latent Print Section

## Quality Assurance for the Examination of Friction Ridge, Footwear and Tire Tracks

### **1. Scope**

- 1.1 The measures taken to ensure that latent print examinations performed in the Latent Print Section of the Maine State Police Crime Laboratory are done according to the currently accepted standards in the Latent Print field and the established policies of the Laboratory will be described.
- 1.2 Latent print development techniques used in the Latent Print Section are located in “Enhancement of Latent Prints, Footwear and Tire Tracks” (LP-M004). Capturing latent impressions is discussed in the “Capturing Latent Impressions” (LP-M002) and “Casting Impressions” (LP-M003).
- 1.3 The examination methodology used in the Latent Print Section is described in “ACE-V Methodology for Friction Ridge, Footwear and Tire Tracks” (LP-P002).

### **2. Quality Assurance**

- 2.1 The Section Supervisor will ensure that the methods used in the Latent Print Section are currently accepted in the Latent Print field.
- 2.2 The Section Supervisor will ensure that all personnel performing work in the Latent Print Section follow the appropriate laboratory and section policies and methods, and that the equipment is in proper working order.
- 2.3 Impression evidence analysis is only conducted by a fully trained and qualified latent print examiner who has successfully completed a proficiency test in the applicable discipline within the previous year.
- 2.4 The Latent Print Section does not routinely re-examine each other’s physical evidence processed in the lab for the presence of developed impression detail. Re-examination can occur if requested or warranted by the case or the evidence.
- 2.5 It is understood that impression evidence examinations vary from case to case due to the evidence received, the condition of the evidence, and the very nature of impression evidence.
- 2.6 Deviations from policies and methods are sometimes necessary, and this will be evaluated on a case-by-case basis. Any deviations from a policy or method will be approved by the Section Supervisor when possible and recorded in the case notes.

### **3. Impression Examination Procedures**

- 3.1 The accepted methodology in use in the Latent Print discipline for the examination of impression evidence is “ACE-V” (Analysis-Comparison-Evaluation-Verification). This is the methodology used in the Latent Print Section of the Maine State Police Crime Laboratory in the examination of all impression evidence. See “ACE-V Methodology for



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Friction Ridge, Footwear and Tire Tracks” (LP-P002) for a description of the methodology.

## **4. Technical Review**

- 4.1 A Technical Review is defined as an inspection by a peer of the reports, notes, data, and other documentation to ensure there is appropriate and sufficient support for the actions, results, conclusions, opinions, and interpretations. (ANSI/ASB Std 143, 1<sup>st</sup> ed., 2024)
- 4.2 Technical reviews will only be completed by a fully trained and competent examiner in the discipline for which the casework review is being conducted.
- 4.3 One hundred percent (100%) of latent impression casework in the Latent Print Section of the Maine State Police Crime Laboratory will be technically reviewed prior to the dissemination of a written laboratory report.
- 4.4 Technical reviews, and the individual performing the technical review, will be documented in the case record.

## **5. Verification**

- 5.1 Verification is the impartial review of the conclusions reached when a comparison is conducted. It is an independent examination by one or more qualified examiners to ascertain if a decision, conclusion, or opinion is reproduced or is in conflict with the decision, conclusion, or opinion of another examiner. (ANSI/ASB Std 143, 1<sup>st</sup> ed., 2024)
- 5.2 An “independent examination” is one in which the subsequent examiner(s) has no knowledge of the original examiner’s decisions, conclusions or observed data used to support the conclusion.” (ANSI/ASB BPR 144, 1<sup>st</sup> Ed. 2022)
  - 5.2.1 Because of the size of the Latent Print Section, and the way in which data is saved by the laboratory, the verifying analyst does have access to the original examiner’s case file and results.
  - 5.2.2 The Section strives for the ideal of blind (independent) verification; however, we recognize in some cases it is not always feasible. The decision to use blind or open verification may be based on the case circumstances and/or case type (e.g., person vs. property crime; high profile; complex comparisons).
- 5.3 One hundred percent (100%) of latent impression casework conclusions in the Latent Print Section of the Maine State Police Crime Laboratory will be verified by a fully trained, competent, and proficiency tested (within the previous 12 months) latent print examiner prior to the dissemination of a written laboratory report.
  - 5.3.1 In certain instances, conclusions may be communicated verbally, or through electronic mail, but only after the comparison conclusion has been verified.



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- 5.3.2 Comparison conclusions between “ink to ink” or “known to known” finger or palm prints do not need to be verified prior to the (verbal or electronic mail) release of the conclusions if the compared impressions are of high quality. The Latent Print Section has only two analysts. The spirit behind this exception is to allow for the identification of remains or the confirmation of known cards to be done when there is no qualified analyst available for verification at that time. The case file and report will be completed as usual, to include technical review and verification. The case file should reflect that conclusions were released prior to verification, in these instances (a dated case note is sufficient to reflect this).
- 5.4 The suitability of captured or recorded partial impressions (i.e., the determination of whether to deem an impression of comparable value) will be verified prior to any dissemination of results.
- 5.5 Verifications, and the individual performing the verification, will be documented in the case record. Any supporting analytical documentation of the independent application of the “ACE” methodology created during the verification stage will be retained in the case record. This documentation should be commensurate with the complexity level of the examination (e.g., more complex comparisons will require more extensive documentation).
- 6. Discrepancies in Technical Review or Verification**
- 6.1 Technical Review**
- 6.1.1 Non-substantive errors (e.g., necessary photographs were not included in the case record) can be corrected between the technical reviewer and examiner at the time of review.
- 6.1.2 Substantive errors (e.g., incorrect processing) identified in technical review will be addressed in accordance with the Crime Laboratory quality assurance guidelines. The Section Supervisor will be notified.
- 6.2 Verification**
- 6.2.1 False Identification: If an error is found in the verification stage such as a false or erroneous identification it will be brought to the Section Supervisor’s attention.
- 6.2.2 Missed Identification: If an error is found that is the result of a missed identification it will be brought to the Section Supervisor’s attention.
- 6.2.3 Sufficiency for Comparison/Database search: The Latent Print Section recognizes that friction ridge impression utility determinations are subjective and does not view differing utility determinations as an error in casework. Analysts should discuss differing utility opinions and seek third-party review if necessary.



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## 6.3 Conflict Resolution

- 6.3.1 Analysts are encouraged to discuss discrepancies using all tools necessary such as enlarged or enhanced photographs and/or images. Any changes to conclusions or additions to the case record during or after technical review and/or verification shall be clearly noted in the case record.
- 6.3.2 The original examiner and the second examiner (verifier) should attempt to resolve the conflicting suitability decisions or source conclusions via substantive discussion with an attempt to arrive at a mutually agreed upon decision or conclusion that is best supported by the observed data. If agreement is achieved, the conflict resolution process concludes and should be documented in the case file. If agreement is not achieved, the disagreements should be noted in the case record, and the conflict resolution process should proceed to an external third-party review.
- 6.3.3 In the event the two latent print examiners in the section cannot agree, the case will be sent to an outside, third-party for review. Currently the Latent Print Section works with Ron Smith and Associates to fulfill the need for an external third-party review. The use of a different outside party for this review will be agreed upon by the Section Supervisor, the lab Quality Manager, and the Lab Director.
- 6.3.3.1 The external reviewer will be given the original images only, with no mark-ups or conclusions reached by the Latent Print Section.
- 6.3.3.2 If the third party's conclusion agrees with the conclusions of the original examiner, the original examiner should retain the case.
- 6.3.3.3 If the third party's conclusion agrees with the conclusions of the second examiner, and the original examiner is still unconvinced, the relevant examination should be transferred to the second examiner and this transfer should be documented in the case record.
- 6.3.4 Consensus opinions are permitted in the Latent Print Section in complex comparisons. A consensus opinion will include the original two examiners, and the examiners enlisted from the outside agency. This should be used sparingly. The case record should reflect that the opinion was formed from a consensus.
- 6.3.5 No analyst should or will be forced or coerced into agreeing with or writing a technical report in support of any conclusion or opinion with which they do not agree.



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## 6.4 **Documentation**

6.4.1 Discrepancies and nonconformance in work detected during technical review or verification shall be documented in the case record.

## 7. **Consultations**

7.1 A Consultation is defined as: “A discussion or interaction initiated by an examiner seeking guidance for the purpose of interpreting an image or comparison.” (ANSI/ASB Std 145, 1<sup>st</sup> Ed. 2023, Section 3.4)

7.2 Consultations occur only after the original analyst has recorded their preliminary observations in the case record (e.g., Photoshop analysis). These observations should not be shared with the consultant prior to their review.

7.3 Consultations are not considered discrepancies or differences of opinion between analysts.

7.4 Consultations should be documented in the case record and should include, at minimum, the original analyst, the consulting analyst, the nature of the consultation, and the conclusion of the consultation.

7.5 A consultant who has observed the unknown and the known impressions cannot be used as the verifier for that comparison. The Latent Print Section uses an outside, third-party consulting agency in this situation.

## 8. **Print / Impression Evidence Handling**

8.1 For general evidence handling procedures, refer to the latest version of the Maine State Police Crime Laboratory’s Evidence Storage and Handling Policy (QA-P012).

## 9. **References**

9.1 ANSI/ASB 143, 1<sup>st</sup> Ed. 2024 *Standard for Technical Review in Friction Ridge Examination*

9.2 ANSI/ASB 144, 1<sup>st</sup> Ed. 2022 *Best Practice Recommendation for the Verification Component in Friction Ridge Examination*

9.3 ANSI/ASB 142, 1<sup>st</sup>. Ed. 2022 *Best Practice Recommendation for the Resolution of Conflicts in Friction Ridge Examination*

9.4 ANSI/ASB 145, 1<sup>st</sup> Ed. 2023 *Standard for Consultation during Friction Ridge Examination*