COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA STATE POLICE

Harrisburg Regional Laboratory
1800 Elmerton Avenue
Harrisburg, PA 17110

IFB 6100064291
Bid Specifications

The Pennsylvania State Police, Bureau of Forensic Services, Harrisburg Regional Laboratory is seeking bids for one (1) self-contained shooting lab containing a bullet recovery system. The system shall be designed to provide a rapid, safe, and reliable means of recovering fired bullets free of surface damage for use in forensic examinations.

1. BULLET RECOVERY SYSTEM SPECIFICATIONS

1.1. The containment vessel shall be a one-piece welded design with minimum dimensions of 48" tall by 28" wide by 96" long.

1.2. The containment vessel bottom and sides shall be constructed of minimum ¼" thick, type 304, stainless steel.

1.3. The bullet recovery system shall be proof tested to a minimum of 13,000 foot pounds of muzzle energy before leaving the manufacturer.

1.4. The water filtration system shall employ a commercial-grade, continuous-duty water pump, rated at a minimum of 10 gallons per minute. The surface flow shall be from the front to the rear of the tank. The filter system shall employ a user replaceable cartridge water filter.

1.5. The inside, bottom of the containment vessel shall be covered in a durable mat. The color of the mat shall allow for ease in locating discharged projectiles and projectile fragments. The mat shall be secured to the bottom of the tank such that it can be easily removed and replaced.

1.6. A surface skimmer shall be positioned opposite the shooting port and plumbed such that floating debris is quickly cleared.

1.7. A type 304 stainless steel ¼" thick by 6" diameter firing port shall be located at the shooting end of the containment vessel. The firing port shall utilize a barrel rest for test firing firearms.

1.8. LED lighting shall be mounted on the inside of the containment vessel in a waterproof and shock-proof stainless-steel enclosure.

1.9. The containment vessel shall contain a vacuum retrieval wand that allows the operator to quickly gather projectile and projectile fragments from the inside of the vessel, without damaging the items during collection.

1.10. The containment vessel shall have a type 304 stainless steel lid that prevents projectiles, projectile fragments, and water from exiting the containment vessel during operation. The lid shall be raised and lowered using pneumatic or mechanical actuators, and the control panel shall be located at the shooting end of the containment vessel. The operator shall be able to easily disconnect the actuators should there be a need to manually open and close the tank.

1.11. The containment vessel shall be equipped with a self-contained HEPA filter ventilation system. The blower shall be capable of evacuating the vessel within 10 seconds. The blower shall pull air from around the shooter and into the vessel, minimizing the exposure of the shooter to airborne particulates resulting from the discharge of a firearm. The air shall be exhausted from the vessel, through a HEPA filter, prior to being discharged back into the room. The HEPA filter shall be certified to remove 99.97% of particles at 0.3um.

1.12. The containment vessel shall be equipped with a removable casing catcher located at the shooting port that is designed to capture spent cartridge casings from semi-automatic handguns and rifles during test fires.

1.13. The bullet recovery system shall have the capability of being removed from the portable shooting lab, and transported to another location, without the need to dismantle the containment vessel, or cut into the portable shooting tank.

1.14. The bullet recovery system shall include a stand-alone, mobile remote firing cart designed to put distance between the Firearm Examiner and firearm. The cart must be capable of adjusting to any size firearm, including semi-automatic firearms with the magazine in place. The cart must be capable of being actuated both from a local position and from a distance.

2. PORTABLE, SELF-CONTAINED SHOOTING LAB SPECIFICATIONS

2.1. Shall come complete with the bullet recovery system already installed inside it.

2.2. Shall be constructed of a 40’ long x 8’ wide x 8’ high sea cargo shipping container. The container shall be constructed of steel with wood flooring. The container shall be new, or a like-new one-time-use only container, which for this bid is defined as a new shipping container that has had one load shipped in it, any dents are less than ¼” in depth, no visible rust, no penetrations, paint is in good condition.

2.3. The exterior of the shipping container shall be painted gray.

2.4. The interior surfaces of the shooting lab shall be wood framed, insulated, and covered with white or off-white, washable paneling. The insulation shall have a minimum R-value of R-13.

2.5. Shall be equipped with a 36" personnel door; with the location of the door being provided by the customer. See Section 7 of this document for location of door. The door will include a lockset and deadbolt keyed alike.

2.6. Shall be equipped with surface mounted LED lighting fixtures that provide sufficient lighting to illuminate the inside of the portable shooting lab.

2.7. Electrical service to the shooting lab shall be 100 Amp, 240 VAC. Electrical shall conform to current NEC/NFPA codes. The unit shall come equipped with an electrical disconnect and breaker panel. All equipment within the shooting lab shall come pre-wired to the breaker panel. See Section 7 of this document for the approximate location of the electrical disconnect and breaker panel.

2.8. Shall be equipped with sufficient electrical and plumbing connections to run all systems associated with the bullet recovery system and portable shooting lab.

2.9. Shall be equipped with a minimum of four (4) 120V single-gang convenience receptacles on the interior walls of the shooting lab. The receptacles should be spaced evenly along the two (2) 40' walls.

2.10. Shall be equipped with air conditioning, heating, and proper ventilation. The system shall be capable of cooling the shooting lab to 72° F when it is 100° F outside, and heating the shooting lab to 72° F when it is 5° F outside.

2.11. Shall be equipped with a locking ammunition cabinet measuring a minimum of 36" long x 72" high x 18" deep.

2.12. Shall be equipped with a whole room HEPA air filtration ventilation system.

3. DELIVERY AND INSTALLATION

Price shall include Delivery, F.O.B Destination, to the Pennsylvania State Police Harrisburg Regional Laboratory, located at 1800 Elmerton Avenue, Harrisburg PA 17110. The Pennsylvania State Police will be responsible for off-loading the portable shooting lab containing the bullet recovery system from the delivery trailer and placing it on a concrete foundation located adjacent to the facility.

The Pennsylvania State Police will provide and connect the electric and water supply to the shooting lab.

4. STARTUP AND TRAINING

The vendor will start-up the system and verify it is operating within specifications. The vendor will provide on-site training for laboratory staff at the Pennsylvania State Police Harrisburg Regional Laboratory. The training shall include instruction on the proper operation and maintenance of the system. Manuals and technical documentation shall be provided with the unit.

5. EXPERIENCE

The system shall be a regularly manufactured item by the vendor. The vendor shall have at least three (3) successful installations of the specified system in either federal, state, or local government laboratories in the United States that perform forensic examinations.

6. WARRANTY

The vendor shall warrant the containment vessel against leaks resulting from manufacturing defects for a period of 5 years. The vendor shall warrant all other equipment against manufacturing defects for a period of two (2) years. The warranty shall begin on the date of acceptance. The vendor shall repair, replace or otherwise correct any problem with the equipment. When an item is replaced, it shall be replaced with an item of equivalent or superior quality without any additional cost to the Commonwealth.

7. SUBMITTAL REQUIREMENTS

The bid must address all requirements within these specifications. Additionally, the vendor shall provide the following with their bid submittal:

7.1. Photographs and references for three (3) successful installations.

7.2. Shop drawings indicating equipment layout and dimensions for shooting lab and bullet recovery system. Below is the recommended layout. Any deviations from this layout shall be explained within the bid response. The double door must be operational and permit the Bullet Recovery System to pass through the doors.