DATE: August 26, 2025

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Virtual Reality Simulator Training System for the Corpus Christi Police Department's Police Training Academy

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CAPTION:

Motion authorizing the purchase and installation of a virtual reality training simulator including computers, networking, training, and five-year warranty from V-Armed, of Brooklyn, New York, for the Corpus Christi Police Department's Police Training Academy, in an amount up to $383,000.00, with FY 2025 funding from the Crime Control and Prevention District fund.

SUMMARY:

This item is a motion to approve the purchase and installation of a virtual reality training simulator for the Corpus Christi Police Department's Police Training Academy. The virtual reality training simulator will be used for the training of police trainees and sworn personnel.

BACKGROUND AND PURPOSE:

The purpose of this virtual reality training equipment is to provide a fully immersive environment for Police scenario training, specifically decision-making under stressful conditions. In today's policing landscape, law enforcement agencies are subjected to rigorous public scrutiny and face continuously evolving threats. Incidents involving the use of force garner significant attention and necessitate enhanced officer training aimed at improving judgment and de-escalation techniques. Conventional training methodologies, such as brief classroom instruction, static firearms practice, or sporadic role-playing exercises, frequently fall short in appropriately preparing officers for real-world encounters. Furthermore, live scenario exercises demand considerable coordination and are unable to replicate all of the perilous situations that officers may confront safely during training simulations.

Virtual reality simulation training enables the Corpus Christi Police Department (CCPD) to position its police officers within realistic scenarios that mimic actual policing challenges in a safe and controlled environment. By using the virtual reality simulation training, CCPD's police officers can practice managing armed confrontations, mental health crises, or active shooter incidents. Additionally, it provides comprehensive after-action review features that CCPD and its police officers can analyze, learn from, and use to enhance their skills and training. Officers that participate in virtual reality training acquire increased confidence, superior decision-making skills, and heightened situational awareness in the field.

V-ARMED's virtual reality simulation training is equipped with advanced features to enhance the virtual training experience. The main features and equipment include:

- 30'x30' Optical Tracking System that includes wall mounted hardware, cameras, networking, computers, servers, screens, and cables

- Six Whole Body Inverse Kinematics and six Operation-Oriented Motion Headsets that provide realistic and responsive body movement tracking

- One Head Mounted Display (Virtual Instructor) that delivers immersive visual experiences

- Headphones that ensure high-quality audio for an engaging training environment

- Computer that powers the system with robust performance

- Weapon Tracker that accurately tracks weapon movements in the virtual training environment

- Training Pistol, Rifle, and Taser that offer realistic weapon handling and practice (these training weapons will be customized to what CCPD's police officers carry

The V-Armed Dispatch software records the entire training session and allows it to be instantly replayed in a high-resolution 3D After Action Review that is guided by an auto-generated critical event timeline. All sounds, communications, and actions of participants are captured by the Dispatch software, and the system can playback the session from unlimited points of view. This allows instructors to teach, critique, and improve the police trainees' performance immediately using indisputable data.

All of the above equipment will be shipped within six weeks of order, with an estimated installation time of one week. After the installation is completed, V-Armed will provide CCPD with one week (40 hours) of training. Troubleshooting will be available with V-Armed through phone and/or video call. Equipment and component repairs will be shipped overnight to V-Armed, as they have an understanding that police training is a top priority. However, if on-site services or repairs are needed, a V-Armed employee(s) will travel onsite when requested.

CCPD originally considered relocating its existing virtual training simulator to the Police Training Academy. However, after extensive review, CCPD and IT determined that the current virtual training simulator equipment is out of date (over 10 years old) and not under warranty. Furthermore, the current virtual training simulator technology has vastly increased over the past decade to reflect today's policing. The proposed virtual reality training simulator is equipped with the latest technology that will be utilized by CCPD to ensure that it remains a high-performance Police Department.

The virtual reality training simulator will be utilized by all CCPD police personnel (officers and cadets) and will also be made available to external law enforcement agencies. The following prominent agencies currently use the system: New York Police Department, Los Angeles Police Department, Miami Police Department, Orlando Police Department, and the Mexico City Police Department. Additionally, several colleges' and universities' police departments are using this technology to include New Mexico Tech University, Louisiana State University Training Academy, and Texas Alvin College.

PROCUREMENT DETAIL:

Finance & Procurement conducted a competitive Request for Bids to obtain bids for a virtual reality simulator training system to be used at the Police Academy. The City received one responsive, responsible bid. Staff are recommending the award to the lowest, responsive, responsible bidder, V-Armed, Inc. of Brooklyn, New York.

Procurement conducted a local and national search for suppliers capable of providing the large virtual wall training apparatus and not the virtual headgear (goggle) type training system. The search identified seven firms, namely Apex, Inveris, V-Armed, Virtra, Milo, and Imeropex, that have previously provided or are currently supplying training systems for the Police Department and Police Academy cadets. Two of the seven firms are no longer providing services, one is no longer taking orders due to workload, and only one of the remaining four provided a bid to the City.

ALTERNATIVES:

The alternative is not to purchase the simulator and continue with conventional classroom training settings; however, conventional training methods do not provide the enhanced training that the virtual reality training simulator providers for officers to perform their duties at a higher level.

FINANCIAL IMPACT:

The fiscal impact for FY 2025 is in an amount up to $383,000.00 from the Crime Control Fund.

Funding Detail

Fund: 9010
Organization/Activity: 11718
Project # (**CIP Only**): N/A
Account: 520090
Amount: $383,000.00

RECOMMENDATION:

Staff recommends the approval of this purchase agreement with V-Armed, Inc. of Brooklyn, New York, for virtual reality training simulator training system to be used at the Police Academy, as presented.

LIST OF SUPPORTING DOCUMENTS:

Service Agreement

Bid Tabulation