




Police Department

# Memorandum

**To:** Village President and Board  
**Cc:** Mark Fleischhauer, Village Manager  
**From:** Patrick L. Kreis, Chief of Police   
**Date:** January 29, 2020  
**Re:** Proposed Deployment of License Plate Recognition Cameras

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The Police Department has been exploring the potential use of Automatic License Plate Recognition (ALPR) cameras for some time. Such technology has been utilized by police agencies for more than ten years. The attached memo from Police Staff goes into further explanation of the use and benefits of such technology. In short, the Department envisions such technology to be particularly useful in combating vehicle thefts, retail thefts, burglaries and other crimes afflicting our community.

Although funds have been budgeted to purchase ALPR, we have moved slowly in part due to the anticipated technical challenges regarding implementation and support of legacy ALPR systems. Recently however, staff discovered a relatively new vendor that has developed ALPR technology for considerably lower costs and requiring much less local technical support. Essentially the vendor owns, installs, maintains, connects and provides web-based software that significantly reduces local support requirements. In addition this vendor has developed technology increasing the investigative value of ALPR images.

After further research, a proposal has been developed to deploy ten cameras designed to provide both a proactive safeguard for the community, as well as an important reactive investigative tool following the commission of a crime. Deputy Chief Zimmerman and I will look forward to providing a presentation to the COW and addressing any questions or concerns from members of the Board or the community at large.



## VERNON HILLS POLICE DEPARTMENT INTER-DEPARTMENT MEMO



**TO:** Chief Kreis

**FROM:** Deputy Chief Zimmerman #90  
Sergeant Gillespie #208

**DATE:** January 29, 2020

**RE:** Automated License Plate Reader Recommendation

**cc:**

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### **Automated License Plate Readers (ALPR/LPR)**

Security cameras are one of the best tools available to law enforcement when investigating criminal activity. Many unsolved criminal investigations have images of an offender or an offending vehicle. Often, the inability to identify these offender(s) is where an investigation ends. Offenders committing crime are often difficult to identify by surveillance video, however, a very high percentage of crime in Vernon Hills involves the use of a vehicle. Identifying a vehicle's make and model is a much easier task and often leads to an offender's identification. Additionally, vehicles identify themselves by the series of numbers and letters on their registration plate.

License Plate Readers (LPRs) gained popularity in the '90s and today have become very advanced. Top LPR manufacturers offer both roving and fixed cameras, but in the past, because of the costs affiliated with the cameras, most agencies elected to purchase cameras fitted to a roving patrol vehicle to capture more plates. To ensure its efficiency, an LPR vehicle is assigned to roving patrol twenty-four hours a day. Any down time for the vehicle renders the camera(s) useless.

Recognizing the current landscape of our Village, the use of multiple fixed cameras would benefit the operations of our Police in better protecting the residents and businesses. Thanks to advancements in camera technology, and a competitive market, the Vernon Hills Police have identified a manufacturer that will install ten, fixed, solar powered cameras, at a price comparable to what it once cost to outfit a single patrol vehicle.

Fixed cameras can capture color photographs that identify a vehicle's registration, color, and type. Engineers have also developed algorithms to assist in the identification of other

anomalies in an image to include a vehicle's manufacturer, by logo shape and bodylines. Included software allows investigators to perform advanced searches that allow them to search multiple identification options.

The biggest advantage these cameras provide to our patrol operations is crime prevention. Over the last several years, a new trend has affected our community. Theft crews from Chicago come up to the suburbs in a stolen vehicle, with the intent of stealing more vehicles. These stolen vehicles are often used in the commission of forcible felonies. Since 2017, Vernon Hills residents have fell victim to twenty-five stolen vehicles. Collaborative efforts were put in place over the past three years to prevent and deter vehicle thefts; however, these measures can be expensive and inefficient. An LPR would alert officers when a stolen vehicle enters our jurisdiction.

Notifications from the LPR alert officers to habitual retail theft offenders, burglary crews, registered sex offenders, missing persons, AMBER alerts, SILVER alerts, and stolen vehicles in Vernon Hills. From a proactive, reactive, and investigative standpoint, this system would benefit Department operations and increase our ability to protect the people and businesses within our Village.

Crimes that were not prevented would immediately have a strong lead to assist in the investigation. Most criminals use a vehicle to commit crime. Often the vehicle is our biggest lead, but without the vehicle's registration, it is difficult to locate an offender. An LPR capturing vehicles entering and leaving our Village limits, and the software's ability to search a vehicle by date, time, color, and type greatly enhance our capability of identifying a vehicle and suspect. Any vehicle identified as being involved in an ongoing criminal investigation would be entered in to the search list. When the vehicle passes one of the LPR cameras, Officers would be notified immediately.

Plate captures have proven successful for the Vernon Hills Police Department. Between 2013 and 2015, more than thirty Village residents fell victim to residential burglars; reporting the loss of jewelry, precious metals, personal items with meaning, and currency exceeding \$350,000.00. After eighteen months, and countless hours of labor and overtime, we were able to identify the offender(s) using battery operated, fixed cameras that required manual downloads. An LPR would have simplified our efforts and loss by identifying the suspect(s) much sooner.

We are confident businesses and residents will see immediate results with the implementation of this system. Agencies already using this type of technology are reporting a reduction in crime. After proving success, businesses and homeowners' associations could be encouraged to implement an LPR system to protect their retail areas and neighborhoods, working with the Department to increase our ability to serve and protect.