



ComSafe's philosophy regarding security is to focus on security as a whole and manage all security risks as such. ComSafe philosophy is to utilize technology, minimize the human element and achieve superior security at a lower cost than conventional outdated security measures. ComSafe has developed unique proprietary technology to achieve this.

The solution will address several key elements:

- The installation technology to ensure a comprehensive security solution and address the needs of Pecan Place.
- Integration of all systems into one single monitoring platform to enable intelligent real time monitoring by ComSafe.
- The monitoring of all security equipment and rapid response to any possible situations 24/7.
- Having backup and failover in case of any failures ie. Load shedding/power failures, mechanical failure etc. to ensure uninterrupted security.
- Implementing a system that is expandable and flexible
- Having a service and maintenance plan in place to make sure all the equipment and systems are fully functional and well maintained to ensure its longevity.

### **Areas to be addressed:**

- Access control to and from Pecan Place
- Perimeter security
- Alarm systems in houses
- Electrical standby and backup equipment
- Service and maintenance
- Monitoring and response
- Quality control of service provider

### **Access control to and from Pecan Place**

The first and most obvious area that needs to be addressed is access to Pecan Place. The proposed solution caters for vehicle and pedestrian access and accommodates various people and situations. This would include residents, regular visitors, ad hoc visitors, domestic workers, gardeners, service providers, contractors, deliveries, site workers etc. The solution caters and ensures complete security and control in all scenarios.

- Motorized motor gates

There will be two motorized gates for entry and exit that allows for access to and from Pecan place. These gate will suffice to accommodate all vehicles and pedestrians accessing the Estate. The gates will be equipped with anti-tailgate technology, intercom system, biometric access control and covered by CCTV cameras to establish proper access control. The CCTV, Biometric, Intercom and Anti-Tailgate Systems will also be elaborated on under their headings.

With this solution numerous functionalities can be achieved.

Some standard functionalities include:

- Full control over all vehicles and pedestrians
- Tailgating detection and counter measures
- Automatically detect pedestrians trying to slip in with vehicles
- Gate will open in accordance to situation, full for vehicles and partially for pedestrians
- Full control and audit of all vehicles and pedestrians entering and exiting Pecan Place
- Minimising the Human Element with increased automation and control
- The ability to function without the use of remotes and the increased risk of remotes
- Gate tampering detection
- Gate standing open detection
- Vehicle numberplate recognition
- Full audit trail of all gate transactions paired with CCTV footage
- Ability to tie vehicles, drivers, CCTV footage and all relevant info together
- Dispatch reaction on threat detection

The proposed gate access system is state of the art and offers full control over all forms of access to Pecan Place. The system is fully customisable and options and variations available to Pecan Place are too numerous to mention.

- Intercoms system

a GSM intercom system at the motor gate to have proper control, security and flexibility is a critical element to the complete solution.

This proposed system offers various features that includes:

- System that is cell phone based
- Full log of both successful and attempted gate openings reported.
- Phones residents on cell phone which makes it user friendly.
- Bulk SMS to complex residential units.
- Bulk emails to complex residential units.
- Able to operate multiple gates
- Allows for visitors departure control (via keypad for exit pin)
- Remotes to be replaced by resident opening gate from cell phone (cost free)
- Individual unit report-phone bill and gate openings
- No way to determine from gate if residents are home or not – no “no one home calls”
- Remote controlled integration and management via the internet.
- System is integrated with other systems like biometrics, CCTV etc.
- One time exit pins and visitor authorization by resident

There are numerous ways to utilize the system and we will discuss the various options and functions to tailor a solution that best suit Pecan Place’s needs. As ComSafe secures a lot of housing estates we have established some best practices and would be able to assist and demonstrate various ways other estates make full effective use of similar intercom systems.

- Pedestrian access

Pedestrians will gain entry and exit Pecan Place through the main gates. The gates will open in accordance to the situation. For pedestrian use the gate will not open completely but only open pedestrian. The anti-tailgate system will detect and activate on any pedestrian tailgating attempts. Pedestrians have various options as a means of entry or exit depending on their profile, visitors being authorized by residents via the intercom and residents have various means including biometrics. With this solution numerous functionalities will be achieved.

Some functionalities:

- Multiple person and Tailgating detection
- Unauthorised entry attempt detection and alert
- Gate kept open for prolonged period detection and alarm
- CCTV facial footage of all pedestrian entry/exits or attempts
- Verification before access
- Anti-pass back functionality
- Tampering alert
- Forced entry alert
- The ability to function without remotes and the associated risks
- No fixed pin codes to gain access
- Full log of all entry and exits paired with CCTV footage
- Numerous user profiles can be set for instance: resident, domestic, regular visitor
- Time and attendance
- CCTV footage of all entries and exits on users profile history
- Audit trail and history of all transactions including CCTV footage
- Web based interfaces to easily enroll, update and make changes

At the risk of overelaboration and because of the multitude of functionalities we will discuss the options, control and flexibility of the proposed pedestrian access control with you in more detail to tailor make the solution that best serve Pecan Place.

- Biometrics

Part of the installation is Biometric fingerprint readers at the entry and exit gates (coupled and integrated with the intercom system and CCTV) that will serve both vehicles and pedestrains. This will give Pecan Place absolute control over residents, visitors, domestics, gardeners, regular service providers etc.

ComSafe only install biometric readers of the highest quality that are used in the banking sector to verify their client's identity. Inferior biometrics and the problems and risks attached to it speaks for itself.

Some features and benefits:

Best quality detection and functioning in harsh environments  
Full report on all user's entry and exits  
Access parameters can be set to specific date and times per user.  
Anti-pass back  
Time and attendance  
Attempted access by unauthorized persons  
Completely configurable system  
Management of system can be done remotely  
System is fully integrated with other security systems like CCTV etc.

Summary

The biometric fingerprint readers will result in full control and reporting on all entry and exits by vehicles and pedestrians through the gates. This will also negate the need for remotes to open gates and have a full history report coupled with CCTV footage of all entry and exits (or attempts).

- CCTV

A critical element to an all-encompassing security solution is a state of the art CCTV system. This proposal includes the installation of a CCTV camera system, to be utilized as a very powerful proactive measure rather than a post incident, reactive investigative measure as is the case with most CCTV systems currently deployed in most estates.

The CCTV system will record all the activity in HD (High Definition) and will be monitored by ComSafe's control room 24/7. Moreover all cameras are IP cameras and equipped with IR to enable full operation day or night. The CCTV system will be remotely monitored by ComSafe's control room for real time footage on the situation at Pecan Place.

The cameras will be monitored via cutting edge technology as ComSafe makes use of video analytics and the integration of all security systems that automatically detect any possible security breaches and to respond to it in real time should it occur. In some areas early warning of possible security threats can automatically be detected. The areas that will be covered by 15 CCTV cameras will be the main entrance and the parking area's as well as the server room.

17 CCTV cameras will cover the following areas:

- 3 fisheye Quad 360 deg cams for parking areas
- 2 cameras for capturing faces
- 1 server room camera
- 2 cameras to cover the general area inside gate
- 2 cameras to cover the general area outside gate
- 2 cameras to view outside perimeters
- 1 camera to cover dustbin storage area
- 4 specialised camera ( license plate recognition etc)

This system will immediately create an alarm on various actions like tailgating, gate manipulation, unlawful attempts at access, tampering etc.

At the risk of overelaboration we would prefer to discuss the details, functioning and pivotal role that CCTV and the 24/7 monitoring can play in your total security solution.

#### Some benefits and features

Excellent quality footage

Real time access and offsite 24/7 monitoring from ComSafe upon any activation

Sufficient storage capacity of footage

High definition recording and playback

Capturing of faces and number plates of vehicles

Early detection of possible threats to perimeter fence in real time

Detection of perimeter security breaches in real time that can be pin pointed

CCTV integration with access control and event searches

Easy search and playback

Capacity to expand by adding additional cameras on existing system

Off-site footage backup & storage

CCTV evidence that could prove critical

Residents will be able to live stream cameras

## **Perimeter Security**

- **Electric fence:**

An electric fence should serve as a physical deterrent and an early warning system if it is installed and monitored correctly. Pecan Place will be fitted with an electric fence that will be incorporated into the total solution.

The fence is divided in to 4 zones that will narrow the area of activation down and increases the effectiveness of the monitoring and response to the area of activation.

With the electric fence in place it will create a physical deterrent and intelligent early warning system that could be monitored and serve the residents of Pecan Place well.

## **Alarm system in each unit in Pecan Place**

Having a monitored house alarm that is linked to an effective response is the last piece of the puzzle. The installation of a state of the art alarm system in each unit forms part of the solution. In so doing it will ensure a complete security solution as each resident is ultimately responsible and in control of their own security. We found that in other estates where all the units were equipped with an alarm system it changed to security landscape completely as ALL security signals and footage terminates on one monitoring platform covering the entire estate.

The alarm system is a wireless alarm and will comprise off:

- Panel, keypad, transformer and backup battery for panel.
- 2 passive infrared detectors
- 1 door contact
- 2 remotes
- Cellphone app for users

Several benefits will be derived from this:

- Individuals and property will be protected
- Alarm will be monitored by ComSafe in an intelligent way using contact ID that displays exactly which zone/s has been triggered
- Rapid response on any alarm activations
- Fitting alarms will complete the security solution for Pecan Place as a whole
- Peace of mind for residents regarding the safety of their loved ones and possessions
- A cellphone app will enable full control of the alarm from anywhere in the world by the resident.
- All devices will run off or have battery backup that will allow for much longer standby and operation time in comparison to hardwired alarm systems.
- All residents will benefit as Pecan Place will transform to an estate that has formidable perimeter and access control and has no place to hit or hide as all areas, including individual houses covered.

## **Possible additions**

The alarm system is expandable and ComSafe will assist residents should they wish to expand the alarm system to include beams, passives, door contacts, remotes etc. to suit their individual needs and increase their personal level of security as they see fit.

## **Battery backup, standby equipment, service & maintenance and insurance**

A battery backup system will form part of the solution as a contingency in case of power outages and load shedding. The system will also have some built in lightning protection. This will contribute to the uninterrupted security operation.

The solution includes a service and maintenance plan to ensure optimal operation, preventative maintenance and most efficient action in case of mechanical failure. Having a service and maintenance plan in place with ComSafe will ensure all equipment is in constant good working order and allow for swift replacement of any faulty equipment.

## **Monitoring and Response on all security equipment in Pecan Place**

The above mentioned equipment forms part of a comprehensive security system that takes all areas of risk, control, intelligent monitoring, effective response, and redundancy into consideration and offers room for expansion on the existing systems should it be required or desired now or in the future.

With the above systems in place Pecan Place can be monitored as a whole covering all areas of risk. The systems are designed and equipped with cutting edge technology which makes it possible for ComSafe to pin point, direct the response units and monitor exactly what is happening as it unfolds through CID (contact id protocols) and also take preventative actions to avert a possible breach in security.

When used in conjunction with biometric fingerprint readers and CCTV the security will greatly be improved and any potential and or imminent threats dealt with swiftly. Utilizing ComSafe's 24 hour control room, monitoring all systems and CCTV and a response force, residents can enjoy a higher standard of living and have peace of mind when it comes to the safety of their loved ones and possessions.

- **The integration of all systems**

ComSafe has an intelligent monitoring platform in their control room that integrates all the different technologies on to one platform and allows the control room to respond to any situations or possible threats in real time and to direct and control all resources as a situation unfolds.

- **Some Benefits:**

- An immediate complete security solution
- Immediate and swift reaction on possible security threats
- Utilizing technology and minimising the human element
- 24 hour monitoring and response of Pecan Place as a whole
- Full control over access to Pecan Place
- Built in redundancy and battery backup
- Expandability off systems
- Ability to investigate incidents and gain evidence
- Constant high level of security with failover systems
- Improved quality of living in Pecan Place
- Increase in property values in Pecan Place