



Rose Dhu Creek Plantation

Replacement Security System Information

The Security System Issue:

As everybody knows, the Security System at Rose Dhu Creek has been a major source of problems for several years now. The current system is far less reliable than we were led to believe when we purchased it. The costs for replacement parts are very high, and the parts are not readily available. Since the system is an older design, spare parts are typically not stocked locally, which delays any repairs.

We have had a large number of failures over the last four years, culminating in the major failure this summer where 100% of the rear gate’s electronics were destroyed by either a lightning hit or a very major power spike. The cost of each major failure amounts to between \$3,000 and \$5,000 – sometimes more.

Since the initial capital investment to purchase the system in 2018 for \$42,556.78, we have spent an additional \$52,664.70 on repairs. And the figure for 2022 will have tripled by year-end, when all of the current repairs are billed and paid. Our “Run-Rate” on Security System repairs is over \$15,000.

Original Investment 2018	2018	2019	2020	2021	2022	Cumulative Vendor Total
42,556.78	9,064.58	11,768.71	11,770.26	15,155.79	4,905.36	95,221.48

This proposal is for the replacement of the entire security system, salvaging those parts of the current system that properly interface with the new one, and that have proven to

be reliable. The system we are proposing is currently being used by several other local communities, which have had much better experience as far as reliability and usability.

While the system is sold by multiple vendors in the Lowcountry, only one vendor has responded to our request for a quotation. This has driven this request to make the large purchase with only one proposal. Fortunately, that vendor is a large organization, with great accounts, both residential communities and commercial accounts.

The current proposal for replacement cost \$38,671 (\$40,407 including taxes). This number will increase after we add some options. Specifically:

- I have recommended that, for the additional \$2,300, we add the full touchscreen version to the back gate too. By doing this we can add the video calling to the back gate and give the residents in the back all of the capability of those up front
- It's not yet clear if the current fobs can be used with the new system. If they cannot, replacing all of the fobs, including having the vendor program all the new fobs into the system, will add approximately \$7,000 to the proposal.
- The current proposal includes eight new high-resolution cameras. If we decide to add more than eight cameras, they cost \$389 each
- As part of this replacement, we plan to add Surge Suppressors to both the front and back gate power systems. This is designed to protect the electronics from surges caused by lightning and from the utility. The cost will be between \$1,000 and \$1,200 per gate.

The new system will come with a 2-Year Warranty. The exact details of what is covered by that warranty is still to be worked out and we will add protections and maintenance as required to ensure this new system doesn't degrade. One thing that has been made clear is that the warranty will not cover lightning strikes (hence the need for surge suppression).

Buying this new system will have a dramatic impact on our maintenance costs. As an example, if we DON'T replace the system, we will need to add \$20,000 to the budgets going forward for maintenance. If we do replace the system, that number will be reduced to around \$5,000. Together with other cost increases, this can mean the difference between assessment increases, or the degree of an increase.

The expectation is that the total cost of the system will be under \$50,000. Currently, the combined capital accounts have \$141,738. The cost of this replacement will be funded from our capital accounts, so there would be no impact on operational funds and no special assessment needed.

What Constitutes The Rose Dhu Creek Security System?

Before going too far into what we are asking to do, let me start by describing what constitutes the security system and how they've performed.

The Access Control System:

The Access Control System is essentially the brains of the environment. Our current Access Control System is made by a company called Doorking. This part of the system includes the fob receiver, the keypad that we type our keycodes into, and the phone environment at the front kiosk where visitors can call you and request entry.

The main board in this part of the system is like the motherboard in your PC. It contains the "access list" of who is allowed into the community. It checked the fob codes or keycodes against the database and sends signals to the gates if they are to open.

This part of the system has been the most unreliable and the most costly to fix.

The Gate Actuator System

The Gate Actuator System actually opens and closes the gates. It's a pretty simple system, mechanical arms enclosed in hydraulic units that swing the gates open and closed. The gates are controlled by relatively simple controller cards that receive signals from the Access Control System (Doorking), and switch the correct voltages to the actuators to open or close the gates. This part of the system also has a board that opens the gates (using battery backup) when utility power fails (Dominion Power).

This part of the system has been the second most unreliable part of the environment. The cost to fix it varies depending on the type of failure.

The Surveillance System

The surveillance system is the part that includes the cameras at the gates and in the Gathering Place area. Overall, the surveillance system has done its job, with only one failure over the past few years.

The purpose of the surveillance system is to capture video when something bad happens. While, fortunately, this doesn't happen often, when it does, we go to the surveillance system to capture clips of the event. Our current system has some limitations that have prevented us from successfully meeting our goal of capturing video of the event (more on this later)

The Access Control System

What Do We Want To Do?

Our plan is to replace the Access Control System almost completely. The following pieces will need to be replaced:

- The Doorking controller boards
- The Keyboards
- The Fob Receiver

What will not be replaced:

- The Emergency Services Clicker Receiver
- The Emergency Services Keyswitch

The system will be replaced with the Liftmaster Access Control System. This is made by Chamberlain, a major player in the market. The same Chamberlain that makes Garage Door Openers

At the most basic level, the Liftmaster replaces the main (front gate) Doorking with a state-of-the-art color touch screen unit, that includes Video Calling. If someone uses the “resident calling” function of the system, a “Video Call” will be made to the resident. The resident can see who is making the request, but the visitor cannot see the resident. That video call is recorded to give a proof-positive record of who entered the community.

The back gate and the pool gate will each have a Cap2d remote access controller in the current proposal. This is essentially the same functionality as the one for the main gate, but without the additional touchscreen and user interface. I have recommended that, for the additional \$2,300, we add the full touchscreen version to the back gate too. By doing this we can add the video calling to the back gate and give the residents in the back all of the capability of those up front.

By using the Cap2d access controller at the pool, we will no longer need a “Gathering Place/Pool” access code. People will just use their standard keycode for entry. The big benefit for us is that (1) We will know who was at the Gathering Place if anything happens, and (2) We can put restrictions on entering the area, such as cutting off access after 8PM when the pool closes.

One key benefit to the Liftmaster system is the user control capabilities. In addition to being able to use fobs for user access, the resident can use the Chamberlain/Liftmaster MyQ phone application. This application puts lots of control in the hands of the

residents regarding extended access. The residents can set up their own visitor entry codes, their own vendor codes, event codes, etc. If they have a service person, like a house cleaner or landscaper, they can set up a code to allow a recurring access code to be defined, like every Tuesday, from 8AM until 6PM. The extent of user enabled capabilities will be determined by the POA board to ensure we maintain good security practices for the community.

Another one of the coolest aspects of the system is that the phone app can be used to "voice control" the gates. As an example, if someone has an iPhone they can just say "Hey Siri, open the front gate", and the app will send the signal to open the gate. The MyQ app is also the same app that is used for the smart garage door openers, so the residents that have a Chamberlain Liftmaster garage door opener can use it there too.

The one hitch in all of this extended "phone app" capability is that it is part of a subscription service from Chamberlain. While the app is free to use for your garage door opener, for residential locations there is a cost. There is a monthly cost for the VoIP lines, the video storage (all of the video calls requesting access can be stored online), and for access. The basic access subscription includes 30 resident licenses. We have about 100 residences, and around 300 actual fobs.

Together with the vendor, we calculated the monthly cost for all services for 100 users. That total cost was around \$150 a month, which is largely offset by no longer needing analog telephone lines from Hargray. Additional licenses are \$1 each. I liken the full access to those current users that want their name and phone number shown in the directory at the front gate right now. So, I would recommend that every household get ONE MyQ account as part of this new install, and that they can purchase as many more as they need. We could charge \$50 per additional MyQ subscription, to pay for it for three years, while protecting us from any marginal price increases over that time.

Why Do We Need To Replace The Access Control System?

The Access Control System is the big problem area in our security system. It represents about 70% of the failure costs and probably 80% or more of the failures themselves. In 2021 we incurred just over \$15,000 in repair costs for the security systems, so I would expect this accounted for over \$10,000 in repair costs. Our 2022 repair costs will easily exceed that number.

What Will Happen If We Don't Replace The Access Control System?

The Access Control System has been a maintenance issue for several years now. The run-rate for Access Control System repairs has been around \$10,000 for several years, and that cost will continue with the current electronics.

Replacing the Access Control System will be between \$15,000 and \$20,000 depending on the number of options we decide to include. Based on our run-rate for repairs, payback on replacing this part of the system is around 2-years. If, as a community, we vote not to proceed with replacing the system, we will include sufficient funds in the annual budget to continue repairs. Understand that this will result in ongoing gate outages.

The Gate Actuator System

What Do We Want To Do?

We plan to replace the gate actuator system at both gates. As a mechanical system, these components are the most prone to requiring repair or replacement due to wear. Unfortunately, whether it be from a lack of proper maintenance on our part, events that damaged the units, or issues with the installation, these units have failed more often than they should. They have been responsible for a number of gate failures, second to the Doorking units.

There are two types of these units sold by the manufacturer – the major difference being the voltage used to operate them. The two versions are 220-volt units and 120-volt units. We use the 220-volt units. Unfortunately, we have been informed that the 220-volt units are no longer being produced. As with the Doorking units, it's harder to find replacement units for our system.

Why Do We Need To Replace The Actuators?

The actuators we currently have deployed have been the second most likely cause of failure. Unlike some of the failures that may occur in the Access Control part of the system, an actuator failure almost always requires that the gates be left open.

There are SIX of these “actuators” at our site – two are required for each gate (Front-In, Front-Out, Back). Several of the units need significant maintenance (as in rebuilding them), or replacement. Replacing each set with new 120-volt actuators for each gate costs \$3677 (Parts). Rebuilding two actuators will cost roughly half that.

In addition to the issues with the actuators themselves, the battery backup units that open the gates when utility power is lost, and closes the gates when it is restored does not work properly. The batteries are not being recharged, and are often dead when they are needed.

To ensure that we have an end-to-end system that works, we should replace the six actuators

What Will Happen If We Don't Replace The Actuators?

While the actuators do not contribute to the number of failures that the Access Control System, they are responsible for several per year, resulting in open gates from one to several days.

From a cost standpoint, the actuators represent the remaining 30% of the annual repair costs, so that amounts to about \$5,000 per year. The parts replacement cost is around \$11,000 for all three gates.

The Surveillance System

What Do We Want To Do?

The Surveillance System has caused us the least problems over the last few years. The cameras work OK and the Network Video Recorders record the video. The issues we have are related to the overall capabilities of the system that has been installed. The good news is that the initial investment in the systems was relatively low (hence the limited capabilities).

Why Do We Want To Replace Portions Of The Surveillance System?

The system is constrained in the following areas:

The Network Video Recorders -basically DVRs for a Surveillance System – is extremely limited in both features and capacity. The amount of time that the Video Recorders can hold is just a small number of days (3 or 4 days). There have been a number of times over the last few years where we could not recover any video for an event because the video was overwritten by new video. Thankfully, those instances were related to thefts or bad behavior, as opposed to something more serious, like violence.

The proposal includes replacements for the video recorders that can hold one and a half months of video.

A second problem is that certain areas do not have sufficient cameras to capture what's happening. The Gathering Place is the best example here. We need at least two additional cameras in that area. We also need enhancements at both gates.

The current proposal includes replacements for the three video recorders and eight new high definition (8 megapixel) cameras.

What Will Happen If We Don't Replace The Surveillance System?

Not replacing the Surveillance System has the least impact of the three major subsystems. We will, however, continue to be constrained to only being able to recover video of events happening within the last few days and we will continue to not be able to have a sufficient view of the Gathering Place and Pool areas.

This is the least expensive part of the proposal.

The Costs

The following two pages show the costs of the current proposal both grouped by the part of the Security System and the overall proposal

TSC Liftmaster Proposal		
Access Control		
Liftmaster Access Control - Front Gate		\$ 3,200
Two - Liftmaster No-Screen Access Control - Front Gate		\$ 1,778
Three - Liftmaster Wired Keypad		\$ 1,167
	Total Access Control	\$ 6,145
Gate Actuators		
Three - Actuator Part 1		\$ 6,819
Three - Actuator Part 2		\$ 4,212
Six - Internal Stop Rods		\$ 1,104
Two - Battery Backup Systems		\$ 3,308
Preformed Sawcut Loop 4' x 8'		\$ 180
	Total Gate Actuators	\$ 15,623
Three - 8 port hardened Networ Switches		\$ 717
Eight - 8MP IR Bullet Surveillance Cameras W/ Analytics		\$ 3,112
Category 6 cable		\$ 598
Three - iPoint Edge Servers (NVRs)		\$ 2,550
	Total Video Surveillance	\$ 6,977
Two - Flashing Lights		\$ 196
Installation Labor		\$ 9,400
Freight		\$ 330
	Total Proposal Price	\$ 38,671
Tax		\$ 1,736
Total		40,407.46



North Charleston, SC 29406

www.tscharleston.com

QUOTE

Date	Quote #
7/25/22	15872

Name / Address
Rose Dhu Creek Plantation ATTN: John Barvis Rose Dhu Creek Plantation Rd Bluffton, SC 29910

Ship To
Rose Dhu Creek Plantation Rose Dhu Creek Plantation Rd Bluffton, SC 29910

Customer PO #	Terms	Rep
Liftmaster Headend	Due on Receipt	JS

Item	Qty	Description	Rate	Total
PART-SL	1	Liftmaster- CAPXLV-MC Multi Tenant Access Control W/Video LiftMaster-Cloud Based Access Control -VoIP and WiFi with Cellular Option -Four Controlled Gates/Doors - (Video Calling requires Phone.com account & high speed internet. Cellular routers are not recommended for video calling).	3,200.00	3,200.00T
PART-SL	2	Lifmaster CAP2D-Connected Access Portal-2 Dr Controller LiftMaster-Cloud Based, Credentialed	889.00	1,778.00T
PART-SL	3	LiftMaster Wired Keypad and Proximity Read	389.00	1,167.00T
PART-SL	3	400 CBAC 115V Standard Basic Single Kit	2,273.00	6,819.00T
PART-SL	3	400 CBAC 115V Arm UL New manual Release	1,404.00	4,212.00T
PART-SL	6	MDL 84 4-ROD INTERNAL STOP	184.00	1,104.00T
PART-SL	2	Battery Backup 115V Pro (With Batteries)	1,654.00	3,308.00T
PART-SL		PHOTOBEAM - DIRECTIONAL ***USE EXISTING***	180.00	180.00T
PART-SL		PREFORMED X-NL SAWCUT LOOP 4' X 8' W/50' LEAD ** USE EXISTING**		0.00T
PART-SL		Knox switch (Mandatory for Fire and Police) ***USE EXISTING***		0.00T
PART-SL		Click2Enter (Mandatory for Fire and Police) ***USE EXISTING***EXISTING***EXISTING***		0.00T
PART-SL		Camera Equipment NEMA ***USE EXISTING***		0.00T
PART-SL	3	8-Port PoE Hardened Network Switch	239.00	717.00T
PART-SL	8	8MP Varifocul IP, IR Bullet Surveillance Camera w/ analytics	389.00	3,112.00T
PART-SL	1	Cat6, 22/4 18/2 Cable	598.00	598.00T
PART-SL	3	iPoint Edge Server Communicate to main gate w/ monitor and Keyboard	850.00	2,550.00T
PART-SL	2	FAAC Flashing Light	98.00	196.00T
Proj40	1	Labor Hours- Installation, Configuration, Training. (Includes all expenses).	9,400.00	9,400.00
FREIGHT or FUEL	1	Freight or Fuel, Shipping and Handling *** ACTUAL TO BE DETERMINED Liftmaster Clickers- \$26 each Cards- \$6 each Fobs- \$8 Each	330.00	330.00

Thank you for considering Technology Solutions of Charleston.	Subtotal	\$38,671.00
Quotes valid for 15 days. Prices do not include shipping, tax or installation unless otherwise noted. Freight charges and/or Surcharge fees may be added for Shipping Costs. TERMS ARE NET 10. PAST DUE ACCOUNTS ARE SUBJECT TO A MONTHLY FINANCE CHARGE.	Sales Tax (6.0%)	\$1,736.46
	Total	\$40,407.46

CAPXLV

Connected Access Portal,
High Capacity with Video

The CAPXLV has an intuitive interface with a high-definition color touch display and customizable background that provides residents with the modern experience they desire.

Popular features



CAPXLV

Connected Access Portal, High Capacity with Video



PRODUCT GUIDE

Integrated camera

- 135° wide angle camera provides a view of access points through a live feed or recorded event through the myQ Community Control web application
- Receive alerts and HD video recordings when an access event is triggered
- Night vision functionality for greater image quality in high and low light environments
- Climate performance includes extreme climate operating range of -20° to 130°F

Engineering and diagnostic capabilities

- Fade resistant, high-definition color touch display and customizable backgrounds
- Advanced self-diagnostics reduces downtime by troubleshooting and identifying when service is needed
- UL 294 listed for commercial settings
- Eliminates trenching with a wireless link to LiftMaster® gate operators

Cloud-based security

- Two factor authentication protects and safeguards resident data
- Easily connects to myQ Community Control to manage multiple entry points and communities from a single dashboard
- Meets California Consumer Privacy Act (CCPA) requirements

Resident guest management

- Residents can grant temporary access instead of handing out their personal entry code
- Residents easily set up and manage their own guest list for one-time, multi-day or recurring events
- Invited guests are automatically emailed custom trackable entry codes, active only during the event
- Community manager retains overall control, setting limits on the number of guests that can be invited and the number of events a resident can create before requiring manager approval
- Certain people and groups can easily be blocked from creating events
- Unique guest-management-only page with myQ Community Control, each resident uses their own individual log-in and password

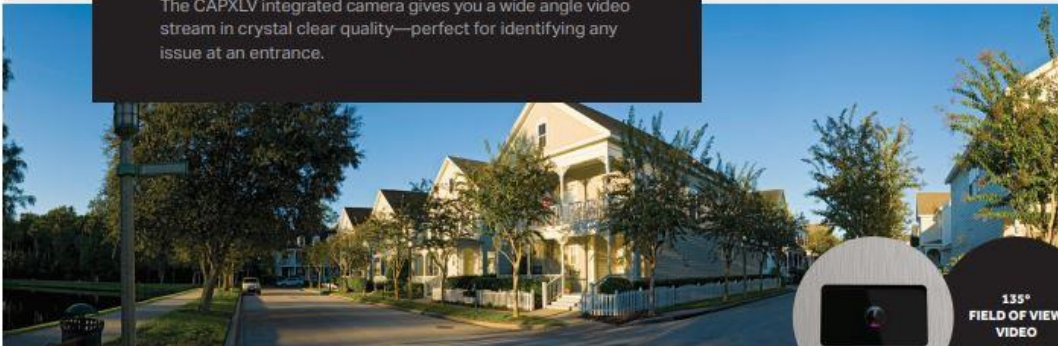
Customized system control

- Set schedules for the facility by person, time and location
- Six customizable program administration roles so each administrator has his/her own log-in with customizable management levels
- Configurable email notifications alert you to use of a suspended code, tell you when codes are overused or if service is needed for the CAPXLV, CAP2D or gate operator



See everything in wide-angle video

The CAPXLV integrated camera gives you a wide angle video stream in crystal clear quality—perfect for identifying any issue at an entrance.



**135°
FIELD OF VIEW
VIDEO**