Behind the Scenes at Ocean Sands

We're more than just a pretty face. Well-designed and solidly built in the 1980's, Ocean Sands has consistently been maintained and updated to be one of the premier buildings on the beach.

We hope you enjoy taking this look behind the scenes.

Table of Contents

Ocean Sands Condominiums, Madeira Beach, Florida
OurOceanSands.com
v.2, May 2020

Ocean Sands Structure

- The structures of the Ocean Sands towers are maintained with care.
- The buildings are power washed, sealed with waterproofing, caulked, primed and painted every 10 years.
- To complete the job, over 3,000 gallons of paint are needed.
- It takes about 11 weeks to paint each tower.
- Last year painted – 2020

Ocean Sands Structure… continued

Concrete

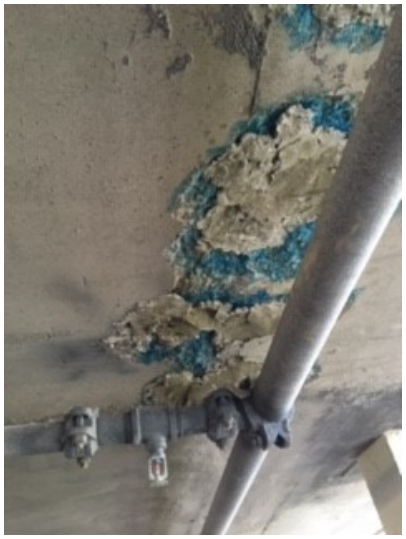
Our structure is reinforced concrete, which means that concrete is poured over steel bars. This steel ***re****inforcing* ***bar*** is referred to as ***rebar***. The rebar strengthens and aids the concrete under tension.

Over time, moist coastal air with dissolved salts, seep through cracks and other surface imperfections in the concrete and attack the reinforcing steel.

The corrosion results in expansion of the outer rebar surface causing the concrete surface to crack and eventually spall off. The areas of the concrete surface where this failure occurs are called spalls.

If this problem is left unaddressed it will eventually lead to structural failure with high repair costs.

Ocean Sands is continuously repairing rebar spalls (pops) to ensure the integrity of our structure.



Rebar corrosion

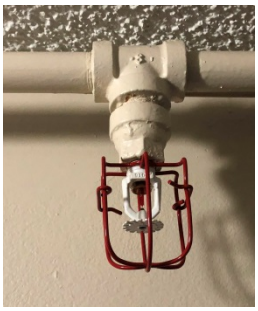
Concrete spalling (pops)

Repaired garage ceiling

Fire Suppression Sprinkler Heads

- In each owner's unit, sprinkler heads are located in the wall or ceiling. Some are enclosed in a wire basket for protection.
- Sprinkler heads are part of the Ocean Sands fire suppression system. If a fire occurs in a unit, a glass tube in the sprinkler breaks discharging water to extinguish or suppress the fire. Behind each sprinkler head, there is 70 psi of pressurized water.

- The sprinkler heads used throughout our residential units are Tyco model TY2234. These have a capacity of delivering water at a rate of 20-25 gallons per minute. A two-bedroom unit contains 13 sprinkler heads.
- An ordinary bathtub holds about 80 gallons of water. So, anytime the glass tube of one of these babies breaks, enough water will discharge to fill a bathtub in about 3 minutes. It is recommended not to break the glass tube of the sprinkler head accidentally.



- Water discharging from a sprinkler head will not only extinguish a fire, but will also flow down through each unit of the stack below. Experience says this is quite a mess.
- In 2016, sprinkler heads in residential units were changed to the upgraded Tyco model. They are inspected yearly by a certified company, and should last for decades.

Fire Pumps

- Behind these blue doors, on the second level parking garage of each tower, is the pump room for the building.
- One very large, red pump located here supplies water to sprinkler heads for the fire suppression system.
- Big Red is a critical part of our fire suppression system supplying hundreds of gallons of water during a fire emergency. It must work.
- Big Red is visually checked daily by Ocean Sands maintenance personnel. Once a month, a test run of the pump is made to ensure proper operation.

Big Red

- Another pump mounted on the wall is also part of the fire suppression system. This pump, labeled a Jockey pump, discharges a very small volume of water, but is also a critical part of system operation.
- The fire suppression system is pressurized to 70 psi. Small leaks in the system cause the pressure to drop below 70 psi. The Jockey pump replenishes the leaked water and re-pressurizes the system.

Jockey Pump

Domestic Water Booster Pumps

- Behind these blue doors on the second level parking garage of each tower, is the pump room for the building.
- One set of pumps, painted blue and located just inside the door, are booster pumps for the domestic water system.
- Water from the municipal pumping station enters the building at about 60 psi. This is not enough to supply water to each floor and especially to the top of the building.
- Pumps in this room, boost the water pressure so that it can get to the units of all owners on every floor.
- The domestic water booster system consists of an operating pump and a standby pump. Each day, Ocean Sands maintenance personnel check the pumps and record the system operating pressure. They also switch the standby pump to the operating pump so that wear between the pumps is kept to a minimum. Each pump has a turn on alternating days.

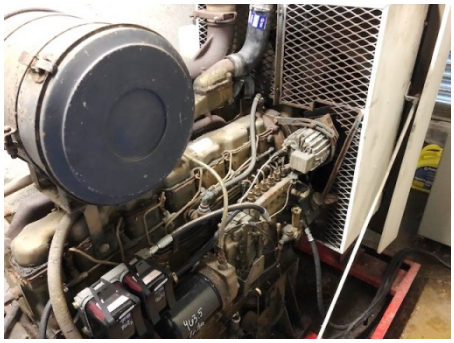
Domestic Water Pump

Emergency Diesel Generator

- In the second floor lobby of each tower, louvered doors lead to a control room and another set of doors labeled “Emergency Generator.”
- The Emergency Generator system consists of a diesel engine, electric generator, and switch gear.
- When power is lost to the building, the diesel engine starts automatically driving the electric generator.

- The switch gear in the room directs the power to elevators, fire pumps, emergency lighting, and owner units as needed. Priority goes to emergency systems and elevators.
- The diesel generators are critical to our safety and are tested every Tuesday morning. That is, on Tuesday morning, these units automatically start and run for about 15 minutes or so. The exhaust from the engines can be seen discharging from the second floor just above the main lobby of each tower. This should not be a cause of concern.

- The diesel engines are inspected and serviced every 6 months and oil is changed every year regardless of how little the unit is operated. The batteries are changed every two years.
- Our diesel engines have served Ocean Sands for four decades. In 2022, the engine of Tower 1 will be upgraded to a new natural gas engine. In 2027, the engine of Tower 2 will be upgraded.



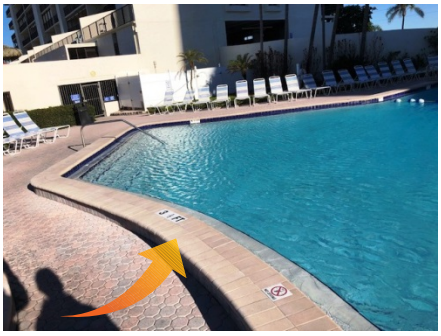
Emergency Diesel Engine

Fire Alarm Control Panel

- In the second floor lobby of each tower, louvered doors lead to a room that contains the Fire Alarm Control Panel (FACP) for the building.
- These units are continuously monitoring the condition of our fire suppression system. They are critical to our safety and have served us well over the years.
- In 2021, the Fire Alarm Control Panel (FACP) for Tower 2 will be upgraded. In 2023, Tower 1 will receive an upgraded panel.

Fire Alarm Control Panel

Swimming Pool



New coping around pool

- Ocean Sands has the most attractive swimming pool on the beach. The pool holds 53,700 gallons of water and has a normal capacity of 30 people.
- In 2018, new coping was installed around the pool.
- In 2020, the pool interior was completely refurbished with new tiling and a fresh surface coat of quartz aggregate.
- The Ocean Sands pool incorporates a circulating water system that consists of a circulating pump and water level control system, three heaters (1 gas, 2 heat pumps), water filters, and a chlorination/sanitation system. The circulating pump, filters, and pool heaters are located behind the white fence in the pool area next to Tower 2.

Heaters, filters & pumps are behind the white fence

Pool circulating pump on right. Pool filters on lower foreground.

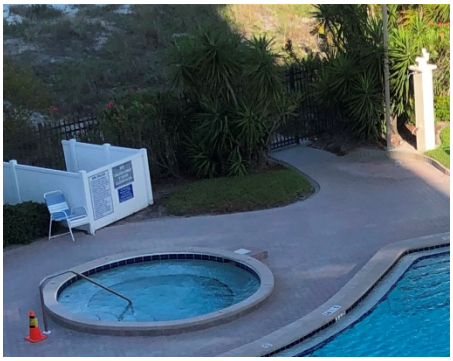
Swimming Pool...continued

Pool Heaters are the 2 on the left and one at right foreground

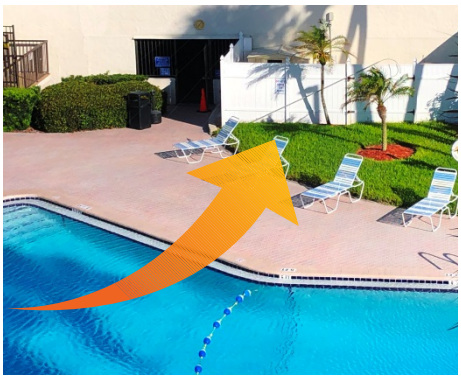
- Depending on the time of year, pool heaters are set between 80-85 degrees.
- The chlorination system is located in a room at the south end of Tower 2 first floor garage. Here, a hypochlorite solution is metered into the pool's circulating water system to achieve the proper level of sanitation. The pool pH and chlorine level are checked three times per week by an outside company.
- Together with the spa/hot tub, on average Ocean Sands uses 150 gallons of 10.5% bleach (hypochlorite solution) per month.
- Chlorine can kill bacteria such as E.coli in as little as one minute.

Metering pumps at top of photo. Hypochlorite Sol'n lower left container

Spa



- Ocean Sands spa (hot tub) holds 2,250 gallons of water and can accommodate 15 people
- In 2020, the spa interior was completely refurbished with new tiling and a fresh surface coat of quartz aggregate.
- The Ocean Sands spa incorporates a circulating water system consisting of a circulating pump and water level control system, a heat pump, water filters, and a chlorination/sanitation system. The circulating pump, filters, and pool heater are located behind the white fence in the pool area next to Tower 2.



Spa pump, filters & heater are behind the white fence

- Spa/Hot Tub water temperature, by statute, is not allowed to be over 104 degrees F. There is a significant health risk if temperature rises above this level. At Ocean Sands, the heater is set at 103 degrees F.
- Caution: Pregnant women, people with hypertension, heart conditions, or other underlying medical conditions, and children should not use the spa/hot tub.

Spa filters

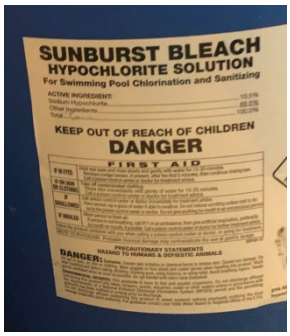
Spa heater is on the right background

Spa...continued

- The chlorination system for spa/hot tub is located in a room at the south end of Tower 2 first floor garage. Here, a hypochlorite solution is metered into the spa's circulating water system to achieve the proper level of sanitation. The spa pH and chlorine level are checked three times per week by an outside company.

- Together with the swimming pool, on average Ocean Sands uses 150 gallons of 10.5% bleach (hypochlorite solution) per month.

- Chlorine can kill bacteria such as E.coli in as little as one minute.



Metering pumps at top of photo. Hypochorite Sol'n is in bottom left container

Elevators

- Elevators at Ocean Sands were upgraded in 2019.
- Stainless steel doors were installed in all four elevators along with upgraded door mechanisms and controls.
- Door frames were clad in stainless steel on all floors of both towers.
- We are good for another 25 years with these modifications.
- Elevators have smoke detectors. When smoke is detected in the shaft, elevators automatically return to the ground floor level and the fire alarm is activated.

- If the elevator control experiences a power failure, each car will travel up/ down for a distance in the elevator shaft to determine its location. If you get caught in such a situation, you will go for a little ride. but, nothing to be concerned about. You may have to push the button for your floor once again.