

### PLUMBING PIPE REPLACEMENT

Plumbing pipe replacement projects involve the replacement of the cast iron drain, waste, and vent piping system. In Hawaii, the life expectancy of a cast iron piping system is approximately 45 years.

The lifespan of copper water supply piping in Hawaii is greater than cast iron. However, there are other factors that can cause corrosion resulting in water leaks. During a cast iron replacement project there's an opportunity to see most of the potable water piping and spot repairs can be made.



### **CONCRETE SPALLING & PAINTING**

Concrete spalling occurs as moisture penetrate the concrete, it can lead to the expansion and contraction of embedded steel, causing stress and eventually resulting in the breakdown of concrete surface. Eventually, spalling can pose a risk to the structural integrity of a building.

Besides the aesthetics, painting acts as a protective barrier, shielding buildings from the environmental elements such as sunlight, rain and other pollutants, thereby preventing premature deterioration.





# **ELECTRIC VEHICLE (EV) CHARGING STATIONS**

There are a number of different kinds of charging stations to choice from and various ways to provide electricity to these stations. Electric charging costs can shared in various way by engineering the system according to the ownership's needs.

Buildings be built today are providing charging stations for 25% of their parking and given the popularity of electric vehicles in Hawaii, charging stations are now considered a competitive amenity.



# **ROOFING**

Most association buildings have flat roofs and there are numerous roofing system options to consider. Warranties, maintenance, weather conditions and exposures, roof equipment, and more all play a role in selecting a roofing system.

There are coatings that can be applied over an existing membrane that will extend the use of the current roofing system. This can be a reasonable solution as long as other roofing factors are taken into consideration at the same time such as flashing, drains, etc.





### FIRE ALARM SYSTEMS

Associations that were identified in City and County of Honolulu Fire Safety Ordinance (FLSE) are required to have fire alarm systems that meet current building code standards. However, the vast majority of condo associations in Honolulu are not part of the FLSE and are not required to upgrade their antiquated fire alarm system.

In essence, fire alarm systems play a pivotal role in mitigating the devastating consequences of fires, safeguard owners and first responders and facilitate faster emergency responses.



# FIRE SPRINKLER SYSTEMS



Fire sprinkler systems are vital for immediate and effective fire suppression. They prevent the rapid spread of fire, limiting property damage and ensuring the safety of occupants. Unlike other fire safety measures, sprinklers operate automatically, providing a swift response even when occupants are unaware or unable to react.

The installation of a sprinkler system will require infrastructure improvements including a new city water line, fire protected equipment room and potential fuel storage area for a back-up generator.



### **ELEVATOR MODERNIZATION**

Modernizing elevators is crucial for enhanced safety. Efficiency and sustainability. Upgrading older systems improves reliability, reducing downtime and the risk of malfunctions, ensuring smooth vertical transportation.

Elevator modernization not only ensures seamless and secure vertical transit experience but also aligns buildings with contemporary standards enhancing overall functionality and value.



### **ELECTRICAL SERVICE UPGRADE**

Electrical needs are ever increasing with no predictable end to the demand in sight. Old electrical systems are now running at full capacity with limited room for expansion.

Most associations with aged buildings are still operating with the original electrical service. Electrical distribution transformers under ideal conditions will last for about 50 years. It's very important for associations to know what the remaining lifespan of their transformers are. If problems occur, temporary remedies are extremely expensive and new transformer delivery times are lengthy.





### RECREATION DECK

Many new condominiums today feature a wide assortment of amenities due to changing demographics and lifestyles. Rehabilitating an old recreation deck may not be a high priority item for an association, but in a competitive marketplace there are meaningful implications when comparing new to old.

For associations with recreation decks built into the building structure, waterproofing is the key concern. Waterproofing materials have a shelf life and there will come a time when it has to be replaced. This would be an ideal time to consider enhancing the facilities.



# **LANAI**

Lanai are typically constructed from concrete or wood. Concrete lanai repairs are usually part of a spalling repair project but wood repairs involve a different set of circumstances. There are various reasons why wood needs to be replaced and depending on the type of damage, repair solutions with vary. Wood decay over time, water penetration and termites are the most common problems.

