



**PUBLIC REQUEST TO ADDRESS
THE BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES, CALIFORNIA**

MEMBERS OF THE BOARD

HILDA L. SOLIS
HOLLY J. MITCHELL
LINDSEY P. HORVATH
JANICE HAHN
KATHRYN BARGER

Correspondence Received

The following individuals submitted comments on agenda item:				
Agenda #	Relate To	Position	Name	Comments
51.		Oppose	Maria Elena Mondragon	Essex, MCC Board Members, P.M.P. Management breached their fiduciary duty to MCCCCOA by not following the procedure of advising Homeowners of this vote. Essex breached their fiduciary duty to Marina City Club Promenade members by not advising them of these changes related to the repairs. Addendum 10 says documents to be sent to 600 MCCCCOA. A vote can not exist when legal procedures are not followed.
		Other	Teresa HIRANO	FIX ADA NON-COMPLIANCE VIOLATIONS FIRST
		Item Total	2	
Grand Total			2	



PROPERTY CONDITION ASSESSMENT REPORT (PCAR)

PROPERTY

MARINA CITY CLUB
4333 ADMIRALTY WAY
MARINA DEL REY, CALIFORNIA

PREPARED FOR

MARINA CITY CLUB CONDOMINIUM OWNERS ASSOCIATION
ESSEX MARINA CITY CLUB, L.P.

PREPARED BY

HOA CONSTRUCTION CONSULTING



DATE

APRIL 16, 2021



April 16, 2021

Marina City Club Condominium Owners Association
Essex Marina City Club, L.P.
c/o Jennie Twyman, CMCA, AMS, CCAM
General Manager, Marina City Club
4333 Admiralty Way
Marina del Rey, CA 90292
Sent by email to: JTWyman@pmpmanage.com and ABerry@essex.com

**SUBJECT: MARINA CITY CLUB
PROPERTY CONDITION ASSESSMENT REPORT**

Dear Members of the Board of Directors and Mr. Adam Berry,

HOA Construction Consulting (HCC) is pleased to provide Marina City Club Condominium Owners Association and Essex Marina City Club with this Property Condition Assessment Report (PCAR) for the subject property listed above. Marina City Club Condominium Owners Association and Essex Marina City Club will be referenced as MCC.

HCC prepared this PCAR with a supporting team of consulting specialists. The PCAR is divided into sections for the major building projects or systems. Some of the major building systems have additional supporting reports that the discipline-specific consulting specialists prepared.

Ryan Eck, HCC's principal, leads the team. Mr. Eck has extensive knowledge of the subject property due, in part, to being the Senior Project Manager and Principal-in-Charge since 2017, when various major projects were started at MCC. In addition, Mr. Eck has over 20 years of experience in construction, engineering, and building science. See Mr. Eck's [CSV](#) for more information.

Portions of this PCAR were generated by referencing previously prepared reports that MCC provided to HCC, in conjunction with Mr. Eck's knowledge of the property.

Please see the Attachments Log for links to all documents referenced in this PCAR.

TABLE OF CONTENTS

INTRODUCTION	4
PROPERTY DESCRIPTION AND USE	4
STANDARDS OF PRACTICE	4
SCOPE	6
EXECUTIVE SUMMARY	8
MASTER PROJECTS OVERVIEW	9
MCC SUB-PROJECT PRIORITY LIST	9
OSHA COMPLIANCE PROJECT	11
PROJECT OVERVIEW	11
OBSERVATIONS	11
ASSESSMENT AND DISCUSSION.....	12
RECOMMENDATIONS	13
CENTER TOWER AND COMMON AMENITIES PROJECT	14
PROJECT OVERVIEW	14
OBSERVATIONS	15
ASSESSMENT AND DISCUSSION.....	16
RECOMMENDATIONS	17
REPIPING PROJECT	18
PROJECT OVERVIEW	18
OBSERVATIONS	19
ASSESSMENT AND DISCUSSION.....	20
RECOMMENDATIONS	21
ADA COMPLIANCE AND RESTROOM RENOVATIONS PROJECT	22
PROJECT OVERVIEW	22
OBSERVATIONS	22
ASSESSMENT AND DISCUSSION.....	23
RECOMMENDATIONS	24
SAFETY AND ELECTRICAL SYSTEM PROJECT	25
PROJECT OVERVIEW	25
OBSERVATIONS	25
ASSESSMENT AND DISCUSSION.....	26
RECOMMENDATIONS	27
TOWER FACADE REPAIR PROJECT	28
PROJECT OVERVIEW	28
OBSERVATIONS	28
ASSESSMENT AND DISCUSSION.....	29
RECOMMENDATIONS	30
ROOFING PROJECT	31
PROJECT OVERVIEW	31
OBSERVATIONS	31
ASSESSMENT AND DISCUSSION.....	32
RECOMMENDATIONS	32
ELEVATOR MODERNIZATION PROJECT	34
PROJECT OVERVIEW	34
OBSERVATIONS	34
ASSESSMENT AND DISCUSSION.....	35
RECOMMENDATIONS	35
GENERAL STRUCTURAL OBSERVATIONS AND WATERPROOFING.....	36
OVERVIEW.....	36
OBSERVATIONS	36
ASSESSMENT AND DISCUSSION.....	37
RECOMMENDATIONS	37
EXCLUSIONS AND CLARIFICATIONS.....	39

INTRODUCTION

PROPERTY DESCRIPTION AND USE

Marina City Club is a mixed-use property located at [4333 Admiralty Way, Marina Del Rey, CA 90292, USA](#). It consists of:

- A 600-unit condominium in three residential condominium towers;
- A complex of 101 apartments in a three-story apartment building;
- Adjacent to the lower Center Tower there is a recreation center, three swimming pools, six tennis courts, two paddle tennis courts, a restaurant, a café, a fitness center, a salon, a convenience store, and commercial office space.

The property is located on approximately 10 acres, and the ownership type is lease hold with County of Los Angeles as the owner. The two parties listed above jointly own the improvements to the property.

The marina fronts the property and has approximately 300 boat slips. Residents have direct access to the marina and the public-access walking path that runs the length of the property. Opposite to the marina on the north side is Admiralty Way.

The property is located in an unincorporated part of Los Angeles County. The property is zoned SP and made up of at least three tax parcels. The property use codes are 01HC, 0503, and 8800 that indicates residential, high-rise, condominium. (See the Parcel Profile Reports [1,2,3](#) in the Attachments Log for further information regarding zoning and use.)

STANDARDS OF PRACTICE

This PCAR adheres to industry standard practices and the client's requested area of focus.

HCC prepared this PCAR using the boilerplate, industry-standard [International Standards of Practice for Inspecting Commercial Properties \(ComSOP\)](#) as a general guide.

The PCAR includes visual observations of the following building elements that were readily accessible during the walkthrough survey:

- HVAC system
- Plumbing system
- Mechanical system
- Electrical system
- Roof surface

- Exterior elements
- Building envelope systems that include windows, sealants and coatings, concrete condition, life safety components, and accessibility conditions.

The PCAR focuses on the following building systems that MCC considers priority projects ("Projects"):

- Roofing
- The Recreation Deck and Swimming Pools
- Occupational Safety and Health Administration (OSHA) Compliance
- Window Wall Assembly
- Plumbing and HVAC
- Americans with Disabilities Act (ADA) Compliance
- Structural Integrity of Critical Components
- Elevator Modernization

ComSOP provides commercial building inspectors with an outline of parameters when they assess a property. Each property and PCAR is different, based on the client's needs, property condition, and observer's knowledge of a particular component or system.

The following caveats should be noted:

1. No PCAR, including this one, is ever 100% accurate.
2. To a great degree, the PCAR is based on subjective, professional opinions.
3. The PCAR is not a warranty.
4. The PCAR is not technically exhaustive.

As part of the standards of service, HCC conducted research in relation to the subject property, including a review of available records and reports as well as interviews of people with the most knowledge of the property condition.

SCOPE

The following services were completed during the preparation of this PCAR:

1. **DOCUMENT REVIEW.** HCC reviewed previously created reports, documents, data, plans, specifications, photographs, and other information.
 - a. Coordinated receipt of necessary documents from MCC.
 - b. Researched details of information provided. This may have included reaching out to previous specialists involved in the project, some of whom may have conducted reporting or investigation activities.
 - c. Prepared for the initial site visit by setting up project structure and planning.
 - d. Finalized required list of required specialty observers.
 - e. Started coordination efforts for specialist site visits.
2. **INITIAL SITE REVIEW.** HCC made general observations.
 - a. Condition of common areas and elements were observed and noted.
 - b. Photographs were filed.
 - c. Initial interviews were conducted with key management staff members regarding property repairs and maintenance.
 - d. Compiled data and began initial condition reporting.
3. **SPECIALIST OBSERVATIONS.** HCC invited the specialists to observe and inspect conditions related to their individual area of expertise. Additionally, HCC continued photo documentation of wear, corrosion, failure, or other problems observed during these additional site visits.
4. **DATA COLLECTION AND ANALYSIS.** HCC analyzed data collected during the various site visits and condensed them into the initial draft PCAR, along with specialist recommendations from individual reviews.
5. **FINAL PCAR.** HCC wrote the final PCAR to summarize the condition of the property.

The PCAR contains the following sections:

1. **EXECUTIVE SUMMARY:** A brief, high-level summary of the PCAR and recommendations.
2. **PROJECT OVERVIEW:** Discussions of individual projects (i.e., Piping Project).
3. **OBSERVATIONS.** Descriptions of building components by conditions found.

4. **ASSESSMENT AND DISCUSSION.** Discussions of the conditions of the building components and findings that summarize specialist reviews.
5. **RECOMMENDATIONS.** Recommendations on repair of certain components, including rough budget cost where available and known and based on market conditions. Note: It is unlikely that all components recommended for repair will have a cost of repair included, particularly for repair projects that are unique, complex, or rarely performed.
6. **ATTACHMENTS.** Data or documents supporting the PCAR, which could include but are not limited to the following:
 - a. Photo log as a part of the PCAR and specialty consulting reports.
 - b. Specialty consultant reports.
 - c. Cost estimates or Rough Order Magnitude Costs.
6. **PRESENTATION.** Presentation of PCAR to MCC and review of questions, as necessary (TO BE SCHEDULED).

EXECUTIVE SUMMARY

Marina City Club is a large property with hundreds of thousands of usable square feet. This PCAR is an attempt to assemble and assess much information about areas and components within the property. Due to MCC's size and complexity, a consultant could write a PCAR for each system, amenity, and area. This, however, would result in volumes of reports, thousands of photos, and a vast library of information, for which MCC owners would likely pay hundreds of thousands of dollars. While conducting a thorough investigation and assessment is important, owners should beware of excessive, impractical analysis.

HCC prepared this PCAR to provide MCC with a reasonable assessment of critical amenities, systems, and areas of greatest importance. Areas that are of most importance are components or systems that create the greatest liability to the owner and, conversely, provide the greatest return to value if maintained or replaced.

The Project Priority List described below shows the recommended set of projects, in order. Generally, safety-related repairs should take priority. Next may be liability-related projects or repairs and after that should be items that will provide the owners with increased value.

MCC is in need of significant repairs as many of the building elements, systems, and amenities are in poor condition. A substantial investment in the property is required to bring the major building systems and components back to satisfactory levels. Funding of these projects, however, will be challenging and should not be underestimated. HCC recommends completing the design, engineering, and bidding of all remaining projects to allow current hard bid values to be included in the funding request. Old bid information is no longer valid as the market prices of construction and materials have increased significantly in recent years.

Cost projections for completing recommended repairs and replacing components could range from \$80–\$140 million. See the [Rough Order Magnitude Range](#) document in the Attachments Log for more information.

HCC recommends that MCC start all eight projects on the priority list as soon as possible within the next five years. All safety-related recommendations mentioned herein and in specialist consultant reports, as well as potential violations, must be resolved due to liability concerns.

HCC realizes that the cost projections mentioned above may be alarming. Yet many of the repair items in this PCAR are not new and owners have discussed them for decades. Continuing to postpone or delay renovations to MCC will exponentially increase these already-high costs.

Each PCAR section or project includes: Project Overview, Observations, Assessment and Discussion, and Recommendations.

MASTER PROJECTS OVERVIEW

HCC created the Master Projects Overview as a placeholder for work that impacts multiple projects during renovation. It is the roll-up of the unique sub-projects that MCC identified. Each MCC sub-project has its own criteria, goals, and priority, so HCC organized the PCAR in MCC's priority order. The priority of projects may change based on MCC's goals and needs.

MCC SUB-PROJECT PRIORITY LIST

1. OSHA Compliance Repair Project
 - a. Penthouse bay window cleaning solution
2. Center Tower and Amenities Project
 - b. Pool deck renovation and waterproofing
 - c. Removal and replacement of all tennis court surfaces
3. Repiping Project
4. ADA Compliance and Restroom Renovations Project
5. Safety and Electrical System Project
6. Tower Facade Repair Project
 - a. Concrete Spalling Repair
 - b. Stucco Repair
 - c. Window Project Repair
 - i. Window structural repairs
 - ii. Window sealant removal and replacement
 - d. Exterior Painting
7. Roofing Project (Center and East Towers)
 - a. Miscellaneous small building roofs
8. Elevator Modernization Project

As mentioned, PCAR sub-sections are ordered using the above list. Additionally, the sections below are included. These sections do not logically fit into only one of the projects above. The repairs mentioned within these sub-sections should be incorporated into multiple projects:

- Structural observations (throughout the property)
- Waterproofing of areas outside Project work areas

OSHA COMPLIANCE PROJECT

PROJECT OVERVIEW

The MCC legacy property was built some years ago to comply with codes that are very different than today's. Codes and safety regulations change frequently based on industry conditions, and the more time that passes, the more likely it is that additional items will be identified. Today, some jurisdictions are forcing change on buildings like MCC by issuing stop-work orders for current code life safety violations.

The OSHA Compliance Project was created in approximately 2017 due to California Division of Occupational Safety and Health (Cal/OSHA), issuing a non-compliance [letter to MCC](#) (see the Attachments Log). Cal/OSHA issued the letter (i.e., stop-work order) after a site inspection and it detailed numerous safety violations and failures to meet minimum requirements.

As a result of this stop-work order, no window cleaning was permissible until certain violations were corrected. In the months following the issuance of the consequent stop-work order, MCC engaged numerous contractors and consultants to help comply with the mandate. Bergeman Group (BG) prepared a [letter report](#) detailing the project status as of the end of 2019 (see the Attachments Log).

As of this PCAR, most of the violations have been addressed. Cal/OSHA has granted periodic one-time approvals for MCC to clean windows outside of the areas in violation. However, the bay windows in the penthouses at the top of all three towers cannot be cleaned because the method of cleaning has not yet been determined and proper equipment has not yet been installed.

Although owners of legacy buildings must rely upon consultants and the industry as a whole to recommend and mandate updates to critical life-safety items, the recent OSHA Compliance Project walkthrough did not unveil previously unknown life-safety compliance issues.

OBSERVATIONS

In attendance during an on-site walkthrough March 19, 2021 were representatives from HCC and DH Glabe & Associates (DHG), as well as MCC's Director of Engineering, Mark Baldus. DHG has since prepared a [specialized assessment](#) (see the Attachments Log).

The walkthrough revealed no additional major issues. Yet it did provide for additional group discussions about a solution to cleaning the bay windows that would appease Cal/OSHA. Details are reported in the aforementioned DHG assessment.



The above left photo shows the existing window condition. The photo on the right looks down on the top of the bay window. Note the photo on the right does not show any means of installing a hanging scaffold davit arm apparatus. The space directly above the bay window is an upper balcony, second-floor penthouse unit. This configuration is present for 12 end unit bay windows.

As described elsewhere in this PCAR, many areas of the property may not be in actual compliance with current codes. For many code requirements, however, MCC has been grandfathered in and for these there are no actual code violations. Despite this grandfathering in, the insurance company may have liability concerns. An example of this is the minimum spacing requirement between walkway rails and wires. During the site walk, personnel observed that the building operations crew were installing wire rope at the midpoint of the railing posts within the plaza walkways on numerous levels. MCC had decided to address the rail issue in-house, as it was only an insurance concern.

ASSESSMENT AND DISCUSSION

The penthouse bay window cleaning procedure issue has been challenging for MCC. The original costs to provide and install equipment to clean the 12 windows was in excess of \$550,000 plus consulting fees. Members of the Board hesitated to approve this significant expenditure for only 12 windows. Unfortunately, however, today's costs are likely to be higher, given that three years have passed. Cal/OSHA has already granted MCC four one-time variance requests since they issued the original non-compliance letter. They stated that they will not allow additional variance requests to clean the windows, anticipating an approved cleaning method.

HCC recommends any one of the following options:

1. Purchase and install a portable, long-reach, semi-permanent cantilever boom system that the window cleaner could put in place each time. MCC would own the equipment and store it on each tower roof, and each would need to be tested and maintained with the other safety and rigging equipment. While the system is portable, it will still be anchored to the roof when in use. The system's anchors could not be installed through the floor.
2. Purchase and install a long-reach, permanent, outrigger system. This is similar to the portable version in Option 1 but it would require through-deck anchors that may be unsightly when seen from inside the penthouse below.

3. Purchase and install a permanent, rotating davit system with through-deck bolts to provide a hanging scaffold on the building's exterior. Like Option 2, it would provide a potentially unsightly plate with nut-and-bolt assembly on the ceiling of the penthouse unit below.
4. Purchase and install interior anchor system that would allow workers to access and clean the windows from the inside. This solution could be the least expensive solution but also would require regular access to the inside of 12 penthouse units to clean the windows. In addition, MCC would need to develop and carefully follow protocols and a procedures for entry into the penthouse units.
5. Purchase and install a custom roof carriage system that was suggested in the DHG report, but would likely be the most expensive option. See the DHG report for additional details.

RECOMMENDATIONS

The penthouse bay window cleaning issue could, unfortunately, call for a complicated or expensive solution. HCC recommends continuing to research the first four options above with a strong preference for Option 1. Cal/OSHA has indicated that Option 1 could be viable, but MCC would need to have a licensed Scaffold Inspection and Testing (SIT) company submit a full plan. Contracting companies Lynn Safety and SkyRyder might be able to provide a design-build solution for Option 1.

Although HCC does not recommend design-build projects, MCC could engage a SIT engineering firm to design and engineer the project to Cal/OSHA specifications. The design and engineering could be approved before engaging a contractor, which would allow for competitive bidding of the final design. HCC recommends continuing to solicit engineering guidance from DHG and to address each recommendation within their report.

HCC understands Cal/OSHA has walked the property four times in the past three years and has noted compliance violations. HCC recommends completing unresolved compliance violations as quickly as possible to reduce the chance of additional inspections raising new non-compliance issues.

The DHG report has additional recommendations for the first phase of the OSHA Compliance Project. These recommendations are important but have likely been, or will be, addressed by the building operations crew and do not appear to be a priority in the context of this PCAR.

CENTER TOWER AND COMMON AMENITIES PROJECT

PROJECT OVERVIEW

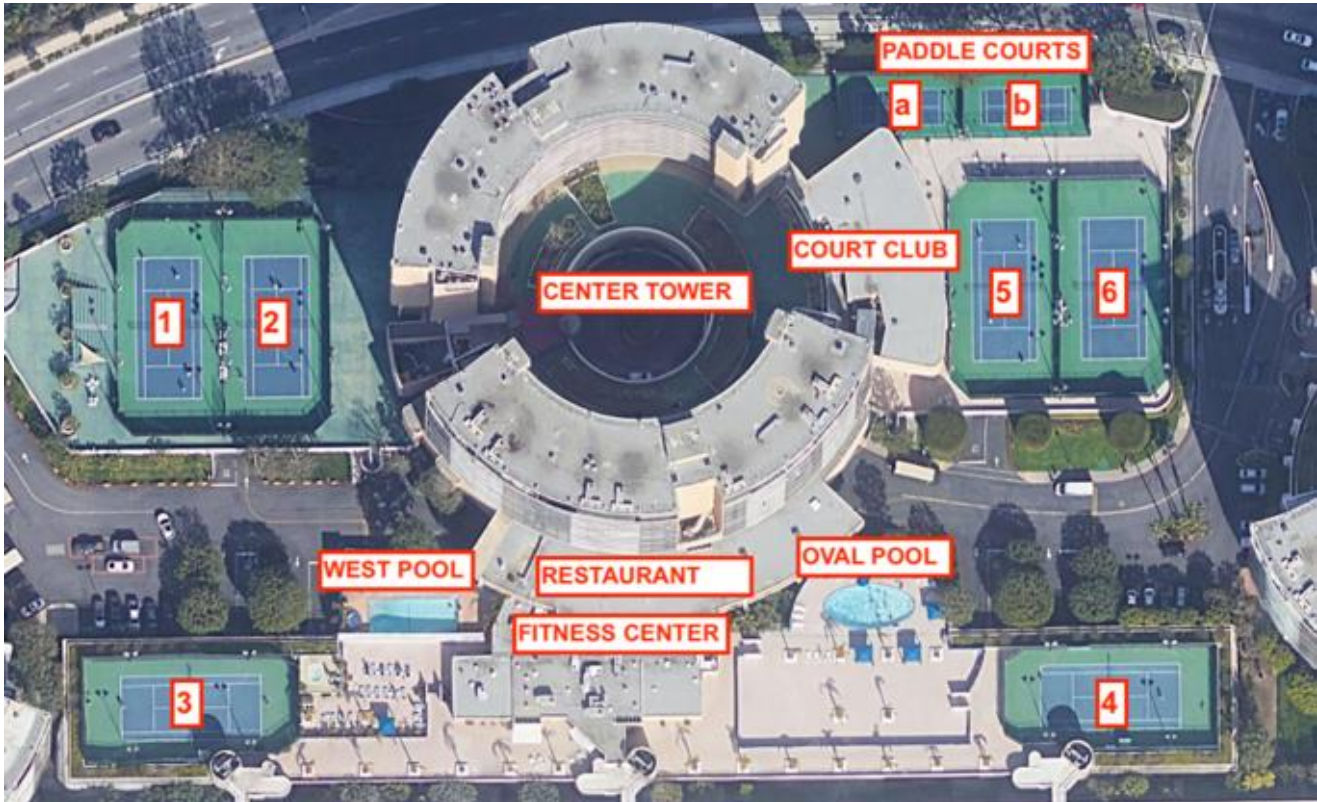
MCC is a large property and its many amenities are available for residents to use and enjoy. The following list and photo detail the primary amenities.

Exterior

- **Recreation Deck.** The primary recreation deck area is located to the south of the Center Tower. It includes the West Pool and Oval Pool. This pool deck is located on the third level with two parking levels below it.
- **Tennis and Paddle Courts.** There are six full-sized courts and two smaller paddle courts. All courts have parking below them.
- **Swimming Pools.** The pools include the West Pool and Oval Pool at the Center Tower and the East Pool located on grade at new the East Tower (not shown in photo below).

Interior

- **Restaurant.** The fine dining restaurant is located above the fitness center and overlooks the oval pool and recreation deck area.
- **Court Club.** The Court Club contains two indoor racquetball courts and separate locker rooms.
- **Fitness Center.** The fitness center is a full gym with free and stationary equipment, men's and women's locker rooms, soaking tubs, and dry and wet saunas.
- **Other Amenities.** Smaller amenities include a salon, massage therapy, personal training, a car wash, and a convenience store.



Google Earth Chrome obtained 4/9/2021, red mark-ups added for references in document

In 2018, MCC started planning and design to renovate the Recreation Deck area directly south of the Center Tower. Studio Pali Fekete Architects (SPF) began creating the initial developmental architectural plans, but the project was cancelled prior to finalizing the plans. During the design phase, a cost estimator was engaged to help with cost control. Numerous related documents outline the project and its updates. (See the Attachments Log for [initial SPF plans](#), a 2019 [update report from BG](#), and the cost estimate.)

OBSERVATIONS

HCC was on site for three days conducting observations of areas and components, particularly those that have been problematic. HCC engaged DTR Consulting Services, Inc. (DTR), a building envelope and roof consultant, to walk the property and observe the exterior decks in the Center Tower area on March 18, 2021 with Mark Baldus. (See the [DTR report](#) in the Attachments Log with numerous photos of the deck and waterproofing.)

HCC also walked other Center Tower areas. It was apparent that no major renovations had been performed in recent years, except for the Promenade Parking Structure repairs. The Racket/Court Club does not appear to have been renovated and is in poor condition. The restaurant has been updated and remains functional but appears dated. The restaurant's kitchen was not observed. The fitness center and locker rooms have been renovated and appear to be in good condition.

The Promenade Parking Structure was recently repaired due to significant concrete spalling, retaining wall safety concerns, and required seismic retrofitting. These repairs were observed

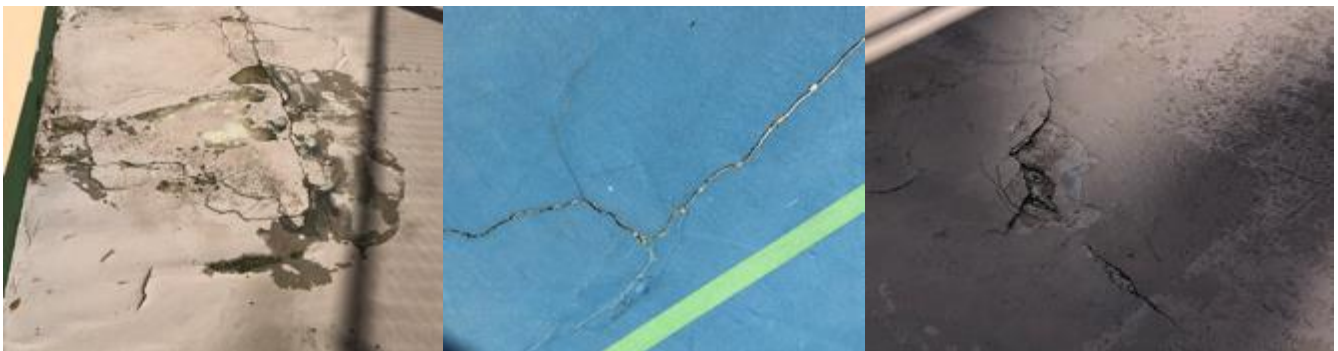
during the walkthrough. No repairs were observed on the top-level deck, which is the recreation deck. The following images show some of the repairs.



Sherwood Pool Consulting observed the swimming including [east pool](#), [oval pool](#), [west pool](#), and [spa](#). (see reports in the Attachments Log).

ASSESSMENT AND DISCUSSION

The DTR report goes into detail regarding waterproofing and concrete spalling issues with the recreation deck and other areas. The key takeaway is that nearly all of the waterproofing throughout the property on the recreation deck and tennis courts is failing in some way with water penetrating the structure. Not only does water create a leaking nuisance to residents but it also is the leading cause of concrete spalling and degradation of structural steel components. Over time, this can cause significant damage to the building's structural integrity. The following photos are of the condition of the waterproofing, which is well beyond its useful life cycle.



The swimming pool inspection revealed that each pool requires some form of repair or corrective action. See the various reports by Sherwood Pool Consulting for additional details.

The SPF renovation plans mentioned above do not address any of the tennis courts or swimming pools and are only about 50% complete. The recreation [deck estimate](#) included in the Attachments Log was generated only as a cost control measure, which is typical during large project design. Additional plans would be needed to include all design disciplines, including civil engineering, electrical engineering, mechanical engineering, structural

engineering, plumbing engineering, landscape architecture, and waterproofing. Each discipline would need to have separate plans and specifications due to components and apparatus that would need modification or replacement during the renovation. The entire construction document package would then be used for bidding, contracting, and construction.

RECOMMENDATIONS

MCC should carefully review the noted deficiencies and recommendations in the in the swimming pool and spa reports and, at a minimum, the safety concerns should be addressed. These repair items could be addressed as a part of a major project, such as the recreation deck renovation, or added to reserve funding projects.

As quickly as possible, the recreation deck project should be taken forward from the point it was stopped. The project scope should include a complete resurfacing of all tennis courts and new waterproofing underneath the court surface. This is of primary concern at the Promenade Parking Structure due to the recent repairs and structure retrofitting that was just completed last year to the structure below.

Recommendations in the DTR report for the recreation deck area should be addressed as a part of the Center Tower and Common Amenities Project. The waterproofing of the tennis courts and areas that flank the Center Tower should also be redone. All courts should be stripped down to structural concrete, the concrete spalling repaired, and the court re-installed. Rusted posts and anchors should be repaired or replaced.

REPIPING PROJECT

PROJECT OVERVIEW

The Repiping Project is ongoing, having started in 2016 with a major flood in the Center Tower directly above the restaurant. This flood necessitated a complete pipe stack replacement, which cost over \$200,000. According to interviews with onsite staff members, pipe leaks have been happening more frequently and with increasing severity over the past decade. The leaky pipes have not been limited to one type of pipe or system.

MCC operations responds to a resident's emergency leaky pipe request at least once per week. Although some leaks are minor and operations crew members can repair them, others require a plumber. HCC has heard costs range from \$200,000–\$300,000 per year on repairs related to the piping systems. These figures include materials costs and pay for operations crew members and third-party vendors responding to emergency leaks and floods.

A major pipe failure caused flooding in the ground floor commercial space (formerly known as Topside) in the West Tower in 2017. The pipe stack above the space was partially repaired and replaced, costing over \$100,000 plus consulting and engineering fees.

In the past decade, MCC's Board members have needed to address issues with the piping system, as is evident in consultant reports. In 2016, the forensic engineering firm Vollmer Gray Engineering Laboratories analyzed pipe samples obtained from waste piping ([see report](#) in the Attachments Log). Their report found that the piping had "sustained heavy interior corrosion and longitudinal fractures along most or all of the pipe length. The fractures were caused by corrosion."

In 2016, MCC engaged consultants and engineers to start a complete repiping project. Due diligence, exploratory investigations, and extensive research of original building plans were performed to prepare new project plans and specifications. The project was bid out to various contractors and a bid analysis was created. The bids were presented to MCC, but the project failed to proceed due to lack of funding and other reasons. (See the BG Re-Piping Project [Bid Results](#) & Recommendation Book for further details in the Attachments Log.)

The mechanical system within the towers includes building exhaust fans mounted on the tower roofs. These fans extract air from within the condominium units. A [report](#) created by Innovative Engineering Group (IEG) was created in 2018. (See Attachments Log.) The recommendations within this report were intended to be implemented as part of the Tower Roofing project. Split system heat pump units are located on the tower roofs. These units provide heating and cooling to the penthouse units.

In 2016 an energy audit was completed by SourceOne. The [audit report](#) is attached within the Attachments Log. This audit included analysis of HVAC systems among many other systems. This audit appears to be very exhaustive and provided many options for improving the HVAC energy consumption.

OBSERVATIONS

The property has many plumbing systems, the most common of which are defined below. These systems are present in nearly every habitable building.

- **Drain piping.** Drain piping conveys sewage-free water from roof surfaces, plaza areas, and deck areas, typically to streams and culverts that outlet to the ocean. Drainage water is typically not treated in any way prior to reentering the regional drainage system.
- **Waste piping.** Waste piping collects sewage-laden water from toilets, sinks, wash basins, bath and shower basins, and laundry washing machines. The waste piping system conveys the sewage-laden water into progressively larger pipes before exiting the property. At that point, the sewage enters the regional wastewater system, ultimately being treated at a sewage treatment facility.
- **Vent piping.** Vent piping runs parallel to the drain and waste piping. This type of pipe does not have any liquid in it. Vent piping allows the drain and waste piping to breathe, thus helping to prevent vacuum clogs. It also allows sewage to off-gas, preventing build-up of deadly methane, hydrogen sulfide, and other gases, highly flammable and potentially explosive gases. In large amounts, these gases are harmful or even deadly to humans.
- **Hydronic piping.** Hydronic piping is used to circulate hot or cold fluid in the heating and cooling climate control system. During the winter months, hot water is circulated and during the summer months, cold water is circulated. Each dwelling unit has a heat pump fan coil to take the hot or cold water and use it to heat or cool the unit's air.
- **Supply piping.** Supply piping carries domestic potable water used for drinking, bathing, landscape irrigation, and other uses throughout the property. The regional water district supplies the water. Two sets of pipes including hot and cold lines run to every unit.

On March 17th, 2021, HCC met on site with a plumbing engineer from REX Engineering to observe the plumbing system in easily accessible locations. Mark Baldus was in attendance. REX Engineering created a [report of the findings](#) (see the Attachments Log). The site walkthroughs revealed that no major repair or replacement of the piping system has occurred since the previously mentioned projects in 2017. It appears the piping system continues to degrade at an increasing rate as the materials erode.

The underground drain piping was not observed as a part of this report and is beyond the scope of the investigation. No leaking or broken underground pipe was reported by Mr. Baldus. Additional investigation including camera scoping of piping can be conducted, if requested.

Large diameter potable water supply mains were observed at the readily accessible underground garage areas during the site visit. No visible damage was noted. No soil excavation was completed to observe concealed underground piping.

The following two photos are of drain pipes in common areas. The photo on the left shows the significant corrosion and pitting of a waste pipe. The photo on the right shows the similar condition of a supply pipe. The copper supply pipe appears to be contacting the cast iron and

the coupler. In this situation, when two dissimilar metals come into contact, a chemical reaction occurs and increases degradation of the pipe. The copper pipe shows significant corrosion. The green buildup (i.e., patina) on the pipe could indicate that water is leaking from the pipe and oxidizing in contact with air. These conditions have been found in many locations throughout the property. In previous site visits during exploratory investigations, walls within units were opened and similar conditions were found.



According to Mr. Baldus, a new chiller was installed in 2016 and a new cooling tower was installed in 2020, at the central plant. This appears to achieve option 1 within the recommendations of the SourceOne audit recommendations.

ASSESSMENT AND DISCUSSION

MCC construction began in approximately 1968 with the West Tower. The other towers were constructed shortly thereafter. This means that the initial piping is now about 50 years old. Cast iron piping has a useful life of 40–60 years in non-marine environments. Copper piping has a useful life of 50–70 years. These life cycle ranges are based on HCC’s experience with other projects and a general knowledge of building materials. MCC is located on a marina, which provides salty air that promotes corrosion and a general breakdown of most building materials.

Leaks occur and repairs are necessary on a frequent basis, sometimes more than once per week, according to operations crew members. Piping that is failing is not limited to one type or use. HCC concludes that all piping systems described above have exhausted their useful life and maintenance costs are increasing. HCC is aware of at least two major plumbing stacks that have flooded within the last five years, causing significant property damage, lost revenues, and significant health and safety risks to residents.

The air ventilation system reviewed within the IEG report shows a detailed analysis of the mechanical equipment on the roof. Based on recent walks it appears that most of the same equipment remains unchanged.

RECOMMENDATIONS

HCC recommends replacing all piping systems described above. Unfortunately, it is only a matter of time before another major flood will occur. The pipes have reached the end of their life cycle and must be replaced as soon as possible.

Replacing the plumbing piping will be no easy task. The endeavor will be costly, time consuming, and invasive to the residents. Given the liabilities mentioned above, this project should be scheduled soon. Previous bids obtained in 2018 to complete this project ranged from \$34–\$86 million for all systems. The bid range, however, indicates that one or more of the bidders is not interpreting the scope of work in the same manner as the others or that the plans and specifications are unclear. Additional investigation and engineering design could be necessary.

The underground drain piping can be camera scope inspected. Once camera scoping is completed by a plumbing contractor the videos should be reviewed and analyzed by a license plumbing engineer. The engineer will be able to identify any failures, damage, or bellies in the underground drainpipe. The engineer can provide a detailed report and recommendations of the video review. Typically, underground piping that has failed can be epoxy lined because of the large size of the pipe and generally short distances. HCC does not recommend lining of piping that is considered small diameter, less than 6-inches.

Assessment of the potable water supply lines from the public right of way is outside the scope of this report. Large diameter water lines do corrode over time and pinholes can develop into blow-outs and flooding. Underground large diameter water piping investigation can be very costly. The water supply pipes can be assessed by excavating the soil around sample locations of the pipes to allow for visual observation of the exterior of the pipes. Additionally, camera scoping of the interior of the large diameter pipes can occur, but the water lines would need to be evacuated (water turned-off) and the pipe dismantled at the end to allow a camera to be inserted. Water supply piping does not have clean-out fittings like drain and waste piping which allow the camera to be inserted easily. Pipe samples can be cut out of the existing pipe and analyzed by a forensic scientist to determine the existing wall thickness. This can be used to determine remaining useful life. It is not common practice to conduct this type of investigation, likely due to the cost. The most conservative approach would be to conduct some or all of these assessment methods.

The replacement of ventilation equipment on the roof should be included in the next reserve study update. Projected end of life dates should be included used to forecast equipment replacement dates. The future cost of equipment should be determined by a qualified professional. If the Roofing Projects should move forward the recommendations in the IEG report should be followed. Any duct work that has rusted holes should be repaired or replaced. Equipment platforms that are failing should be replaced.

ADA COMPLIANCE AND RESTROOM RENOVATIONS PROJECT

PROJECT OVERVIEW

In 1990, the ADA began providing many civil rights to Americans with disabilities. The ADA significantly changed building codes throughout the US, but MCC was already built when the act was passed. As previously mentioned, due to its age MCC does not need to comply with many building codes, but it does eventually need to comply with the ADA for various reasons.

In 2014, ADA Compliance Team completed a Certified Access Specialist (CASP)/ADA [site survey](#) (see the Attachments Log). The report is detailed, covers the entire property, and provides the code standards with which MCC must comply as a historical structure.

In 2018, ADA Compliance Team prepared a [Scope of Work for ADA](#) Remediation (see the Attachments Log). Based on discussions with MCC ADA Compliance Team, this document provides a priority list of recommended ADA repairs. These items were also on the 2014 survey and appear to be the more critical items.

In the Center Tower, residents use a total of eight restrooms on three different levels. Six of these restrooms were selected for renovation in order to meet certain ADA requirements. In 2018, ADA Compliance Team partially completed design plans for renovating the bathrooms. Unfortunately, the project was cancelled due to extenuating circumstances. Only one bid was obtained for this work for over \$1 million.

OBSERVATIONS

During the walkthrough on March 17th–19th, 2021, observers found there are still a significant number of items from the original CASp/ADA Survey that have yet to be completed. Previous Board members and MCC management staff told HCC that the work shown in the survey had been added to a 15-year implementation plan.

While some requirements have been implemented, others are still pending. It appears that some path-of-travel requirements were implemented on the ground level in the use of additional paint markings. Upon recent observation, the bathrooms mentioned above have not been brought into conformance. The following photos were taken during the site visit and show two of the bathrooms with the original finishes, which were typical of all bathrooms mentioned. The restaurant bathrooms appear to have been updated in the last 10–15 years but, according to the ADA Compliance Team report, they also fail to meet the minimum ADA code requirements.



ASSESSMENT AND DISCUSSION

The ADA Compliance team report from 2014 includes 147 items that did not meet code requirements.

Below is an excerpt from the 2019 California Standards for Accessible Design Guide (effective January 1, 2020). Highlights have been added.

Applicability.

In theory, a Building Code remains applicable throughout the life and operation of a building or other element of the built environment -- see also subsequent discussions about changes and Safe Harbors. In practice, the Building Code requirements become applicable only when an addition or alteration is executed that requires a permit, because that is when the enforcement mechanisms described above are activated. There are exceptions, mostly health- and safety-related, such as Fire Marshal inspections, OSHA inspections for workplace safety, Department of Public Health inspections of food service operations, and Joint Commission inspections of healthcare facilities. As a rule, the Building Code requirements that are applicable are the ones that were in effect when the project was permitted. A building owner is expected to maintain compliance with that edition, but is not expected to perform alterations to become compliant with later editions when issued. **S/he is also not compelled to discover and correct conditions that were noncompliant at the time of construction, but were undetected. These existing nonconforming conditions are entitled to remain until a permitted alteration or addition, or an occupancy change, causes the current Building Code to take effect.** As a Civil Rights Law, the ADA is applicable perpetually. It imposes the ongoing responsibility for owners of public accommodations to remove existing barriers for individuals with disabilities to the extent that it is readily achievable to do so, and it imposes the constant responsibility for governmental entities to make their programs and services available to, and usable by, individuals with disabilities. The implied responsibility to discover and correct noncompliant conditions, whether or not an alteration, addition, or change of occupancy is planned, **exceeds** the responsibility imposed by the Building Code. See also discussion of Safe Harbors.

<https://www.corada.com/documents/2019CBCPG/guide-to-the-2019-california-standards-for-accessible-design>

The above excerpt is a small portion of the actual code and regulations currently in effect. Determining if MCC is required to meet any or all of the items that the ADA Compliance Team report suggests would require a code analysis beyond the scope of this PCAR.

RECOMMENDATIONS

MCC has completed some of the simple items listed on the ADA Compliance Team report from 2014. Items should be repaired or replaced when adjacent projects are completed, as required by the Code. Major items in the report that are outside the scope of other project work areas should be reviewed from a risk and liability standpoint. HCC recommends obtaining legal guidance regarding the necessity of completing items proposed in the report.

As the restrooms are in a location with limited public access, HCC recommends that the bathroom renovations proceed, including the restaurant restrooms. This project may cost \$1.2–\$1.8 million and would provide significant benefit to residents, customers, and guests.

SAFETY AND ELECTRICAL SYSTEM PROJECT

PROJECT OVERVIEW

The scope of this project has changed many times over the years. In 2017, it was called “Electrical Upgrades to Common Areas.” There were discussions of adding additional lighting in garage area.

Currently, this project is focused on the following two items:

1. Conduct a thermal imaging survey of all electrical panels to identify components, primarily breaker, that are not functioning as they should and repair or replace them.
2. Analyze the effect the addition of electric car recharging stations on the overall electrical load. Determine approximately how many more could be added to the system.

In 2016 a [lighting audit](#) was completed by SourceOne. This report is included in the Attachments Log.

OBSERVATIONS

On March 19th, 2021, a site walkthrough was conducted with an electrical engineer from REX Engineering. The purpose of this visit was to perform a high-level assessment of the property’s electrical system and provide commentary or recommendations for system preservation. Currently, there are no major known problems with the electrical system. (See the REX Engineering [report](#) in the Attachments Log.)

During the walkthrough, all major power service entrances were observed. Mark Baldus was in attendance during the walkthrough and provided information about previous work on the system. Below are two example photos of equipment that REX Engineering observed. The photo on the left of is of the main service entrance in the East Tower. The photo on the right shows typical individual unit meters from the Center Tower. Every unit has its own meter at a central location near the elevators of every floor for each tower building.



The property has three backup emergency power generators, one in each tower. The building operations crew exercises these generators once per month. Backup emergency power is limited to stairwell and garage lighting. Common area lighting is on 60–90-minute backup batteries. The elevators have no emergency backup power.

A fire sprinkler system is installed within the Center Tower recreation area interior spaces. Fire risers with fire department connections points are located in stairwells throughout the property. There are no fire sprinklers in residential or commercial units except those spaces mentioned in the Center Tower.

Electric car charging points were observed throughout the property parking areas. According to Mark Baldus, any parking stall owner can request to install a charging station/plug but must pay all installation costs. The charging stations are not individually metered; instead, the owners pay monthly for the power consumption based on the anticipated average usage using the car make and model information.

The walkthrough revealed most of the lighting has been converted to low consumption lighting. This was possibly done as a result of the SourceOne energy audit previously mentioned.

ASSESSMENT AND DISCUSSION

The initial goal was to engage an electrical engineer to observe and offer input in a proactive, rather than reactive, approach. As the electrical system was not built to accommodate charging cars, it is a priority to determine how many more electric car charging stations could be installed before reaching maximum load capacity. Currently, few installations have been requested, so the existing system has been able to carry the load. At some point in the future, the electrical service entrance will need to be upgraded or a limit capped on the number of stations.

A specialty contractor could perform thermal imaging analysis. The building operations crew could schedule this maintenance item. Based on the findings within the survey, components of concern could be replaced.

RECOMMENDATIONS

MCC should proceed with conducting the thermal imaging, as described above. The project should not be costly, and the building operations may be able to manage it.

MCC should also engage REX Engineering to finalize their analysis of the electric car charging stations. Further, MCC could consider creating a generic standardized charging station specification to build consistency in the installation type and style.

MCC should continue energy efficiency upgrades to the lighting system including recommendations within the SourceOne lighting audit.

TOWER FACADE REPAIR PROJECT

PROJECT OVERVIEW

The Tower Facade Repair Project consists of multiple scopes of work that include the following:

1. Concrete Spalling Repair
2. Stucco Repair
3. Window Repair
 - a. Window attachment structural repairs
 - b. Window sealant removal and replacement

Over the past four years, the MCC Construction Committee has been made aware of ongoing water intrusion issues in all three towers, as reported by management team members, Board members, and residents. Reportedly, the windows throughout the property leak profusely during major rain events. Documented problems with the windows date back to at least 2007 but the issues likely started years prior to that. In 2007, Wiss, Janney, Elstner Associates, Inc. (WJE) published the Investigation and [Assessment of Existing Windows](#) at MCC PCAR (see the Attachments Log). In 2014, Engineering Design Group conducted an engineering evaluation of the windows and reviewed the WJE report (see the Attachments Log).

HCC understands that the condominium unit owners own the actual window glass within the assembly. MCC owns and maintains the window frames, mechanical parts, and sealants between the building structure and the window assembly.

OBSERVATIONS

On March 18th, 2021, HCC conducted a site walkthrough with Engineering Design Group (EDG) to provide an update to the 2014 report. DRT Consulting Services and Mark Baldus also joined the walkthrough. DRT reviewed the waterproofing component related to the balcony floor surfaces (See Attachments Log for the [DRT report](#)). The group toured six condominium units and balconies and observed the exterior window and building envelope conditions of ground level common areas to confirm if additional repairs have been made from the last assessment by EDG.

The following two photos represent the general window sealant condition. The photo on the left was shot from a ground level position on the East Tower and shows the sealant hanging from the window joint. The sealant detached from the window, leaving a pathway for water to enter the building envelope. The photo on the right was taken from an upper unit on the Center Tower. Cracking of existing sealants is a chronic problem throughout the entire property.

At the conclusion of the site walkthrough, all parties agreed that only limited maintenance seemed to have been done on the windows to rectify items in any of the reports. Building operations reports to address water leaking issues on a per-occurrence as-needed basis. The sealant composition is unknown and laboratory testing is needed to confirm its composition and whether sealants contain hazardous materials.



The exterior building envelope is comprised of various building materials. The major components are the window assemblies, roofing systems, painted concrete surfaces, and painted stucco. Concrete provides not only structural rigidity but also a finished surface when painted. Stucco is used predominantly in areas that are non-structural, such as soffits and enclosures that conceal other building components, such as piping. The roofing systems are discussed in a separate section of this PCAR.



The photo on the left is an example of the corner of an exterior stucco surface. The stucco surface has deteriorated and is crumbling off of the building. The exposed opening allows water to enter the building.

Concrete spalling was not surveyed during the March 18th site walkthrough, but given the condition of the buildings, concrete spalling is likely to be found in isolated areas. Both the WJE and the EDG reports have numerous photos of this. Concrete spalling occurs predominately when building materials change from one type to another. Examples of this include window anchoring connections, railing connections, and transitions between concrete and stucco wall assemblies.

ASSESSMENT AND DISCUSSION

HCC staff have reviewed the above-mentioned reports and has conducted limited on-site window observations multiple times in recent years. The windows at MCC are 45–50 years old. The sealants are likely the same age, dependent on the location and when they may have been repaired or wet sealed. It is highly likely that the vast majority of the sealants are original. Numerous inspections have been completed over the years and there may be other reports mentioning issues with the windows.

The WJE report is detailed and provides an excellent comparison of four window repair options available to MCC in 2007, as follows:

- Option #1: Complete replacement
- Option #2: Wet seal all windows
- Option #3: Wet seal windows and refasten or replace deteriorated window mechanical parts
- Option #4: Maintain status quo

MCC appears to have chosen Option 4.

The painted surfaces on the building envelope appear aged. Isolated locations throughout the property show aging paint surfaces peeling and flaking off.

RECOMMENDATIONS

The following recommendations to MCC are, in effect, a high-level summary of the above-mentioned reports and site observations. The designer of record would need to create a detailed protocol procedure for the repair of each building component. Additionally, a single general contractor should perform all of the steps, even if more expensive, to avoid specialty contractors disagreeing about the steps in the repair process. It would also allow a single vendor to provide the labor warranty.

HCC recommends that MCC follow these steps, in order:

1. Repair concrete spalling throughout the property. Concrete spalling is likely to be identified during the window investigation and repair procedure. Concrete sounding investigation and repair should be done prior to repairing the window anchors, if required. Stucco should be repaired immediately after the concrete repair.
2. Create an investigation and repair procedure that would include opening every window assemble (e.g., jam, mullion) to inspect and correct problems with the structural connection to the building. Any broken glass should be replaced.
3. Remove and replace all window sealants and complete the window mechanics parts replacement that the EDG report recommends.
4. Repaint the entire structure to provide a finished, renewed appearance.

Failing to repaint the structure would leave a visible patchwork of repairs and most product manufacturers for any concrete repair location recommend or require it. Manufacturer's product warranties may be compromised without a painting the buildings. And, manufacturers may provide a building- or client-specific warranty that is much stronger than the general public can obtain due to the quantity of paint purchased.

ROOFING PROJECT

PROJECT OVERVIEW

MCC has over twenty unique roof top areas. The below image shows some of the largest roof areas.



Google Earth Chrome obtained 4/12/2021, red mark-ups added for references in document

According to Mark Baldus, the West Tower roof was replaced in 2006. The Center and East Tower roofs are of unknown age. The Promenade Apartment roofs were reportedly replaced in 2016.

In 2017, BG completed a limited [roof assessment report](#) (see the Attachments Log). The report included order magnitude cost projects for replacing the Center and East Tower roofs.

In 2019, by Blanco Architecture prepared plans and specifications for replacing the Center and East Tower roofs. The project was bid out to roofing contractors and the pricing came in between \$5–\$5.4 million, not including design, engineering, permits, and construction management fees.

OBSERVATIONS

HCC conducted a site walkthrough on March 18, 2021 with Mark Baldus. No destructive testing or exploration was performed. The Center and East Tower roofs appear to have not been modified or replace since the 2017 BG report.



The roof surfaces on both the Center and East Towers appear to continue to suffer aggregate loss. There was also existing ponding water in various locations.

All tower roofs hold a significant quantity of equipment, including air conditioning units, satellite dishes, conduit wiring runs, mechanical equipment, plumbing vent pipes, davit sockets and arms, and skylights.

Due to the number of roofs present not all roof areas were observed.

ASSESSMENT AND DISCUSSION

Water damage is one of the leading causes of insurance claims in the construction and building industry. MCC should strive to prevent water from entering structures in order to reduce claims and costs.

According to the BG Report, the Center and East Tower roofs need replacement in the near future. Mark Baldus reports that there are no active leaks on any roofs onsite, small or large. The smaller roofs on the property are likely original. A detailed review of these smaller roofs was not conducted under this PCAR. A separate report may be prepared by DTR, should MCC need to determine remaining life of each of the small roof areas.

RECOMMENDATIONS

Center and East Tower

The remaining life in the Center and East Tower roofs is unknown. The BG report recommended replacement in 2017. Conservatively, MCC should replace the roofs now to mitigate property damage that could occur during a major rain event. At a minimum, MCC should include the Center and East Tower roof replacement within the future capital improvement reserve budget.

West Tower and Promenade Roof

The West Tower roof should be replaced in 2036, which would be a 30-year lifespan from the reported 2006 installation. The Promenade Apartments roof should be replaced in 2046. Prior to replacing any large roof, however, a detailed roof assessment should be performed.

Restaurant and Meeting Rooms and Court Club Roofs

Further investigation of these roofs is required in order to accurately determine remaining useful life. Considering their size, a separate roof observation report should be obtained from a waterproofing consultant or Registered Roof Observer. As mentioned, there are no reported active leaks on these roofs, as such this investigation is considered low on the priority list.

Other Roofs

Smaller and lower roofs on the property should be evaluated in greater depth. Considering the limited sizes and scope, it may be more economical to manage these roofs in-house based on roofing contractor recommendations for repair or replacement. Alternatively, DRT could conduct a thorough roof survey with core samples.

ELEVATOR MODERNIZATION PROJECT

PROJECT OVERVIEW

MCC has a total of 25 elevators on the property, which include the following:

1. West Tower
 - a. Two cars for the North Tower (requires modernization)
 - b. Two cars for the South Tower (requires modernization)
 - c. One Helix Elevator (not modernized)
2. Center Tower
 - a. Two cars for the North Tower (requires modernization)
 - b. Two cars for the South Tower (requires modernization)
 - c. One Helix Elevator (not modernized)
 - d. One car for the freight elevator and kitchen (modernization complete)
 - e. Two cars for the restaurant and the fitness center (modernization complete)
 - f. Two cars for the G-Suites (modernization complete)
3. East Tower
 - a. Two cars for the North Tower (requires modernization)
 - b. One Helix Elevator (not modernized)
 - c. Two cars for the South Tower (requires modernization)
4. Promenade Garage
 - a. Five Cars (modernization complete)

The current elevator modernization project has been active since at least 2014, when the first bid packages appear. HKA Elevator Consultants prepared a bid package for modernization, including only the 12 elevators that are the primary cars servicing the towers. Since that time, the proposal has been periodically updated. In January 2021, [updated pricing](#) was provided (see updated bid proposal in the Attachments Log).

OBSERVATIONS

A site walkthrough was conducted on March 18, 2021. All elevators appeared to be dated but otherwise functional at that time. HCC did not conduct testing of the elevators due to the known age and documents previously prepared by others.

ASSESSMENT AND DISCUSSION

Elevators built and installed in the late 1960s and 1970s are significantly different than those installed today. Today's mechanical equipment provides better reliability, increased safety, and lower usage costs. These elevators are in use at all times of the day, every day.

OTIS has provided maintenance for the MCC elevators for at least the past decade. The cost of on-going monthly maintenance of all 25 elevators is \$11,800/month. Parts for repairing old equipment are expensive and replacement costs compound the burden of ownership.

There are a total of 15 elevator cars that have not been modernized. Those 15 include 12 cable lift cars and 3 hydraulically lifted cars. They do not have backup power during power failures. During a power failure they do not lower to the next available floor to allow occupants to exit the car. New high-rise buildings require a limited form of backup power, but MCC is exempt from this code requirement due to its age. Only the cable lift elevator cars are included in the current modernization scope of work (12 total). Once complete, the property will only have 3 elevator cars that will require modernization.

The other 10 elevator cars are hydraulically lifted cars, instead of cable lifted, and have already been modernized. These cars have the safety feature of returning to the nearest lower floor in a power failure.

RECOMMENDATIONS

The cost of elevator modernization a major challenge. Considering the factors above and escalating maintenance costs, HCC recommends modernizing the 12 elevators mentioned.

Cost projections for the modernization of the 12 elevators, consulting fees and other costs are included in the [Rough Order Magnitude Range](#) sheet within the Attachments Log.

Once the current modernization project is complete there still remains the Helix elevators that will need to be modernized. With building operations input, MCC should determine a forecast for modernization of these remaining cars. This does not appear to be a critical project but should be added to the future reserve funding budget.

GENERAL STRUCTURAL OBSERVATIONS AND WATERPROOFING

OVERVIEW

HCC engaged KCE Matrix, a structural engineering firm, to walk the property on March 17, 2021. As a point of reference, KCE Matrix was the engineer of record for the recently completed Promenade Parking Structure Repair and Seismic Retrofitting Project, provided assessment of various anchor points related to the OSHA Compliance Project, coordinated and analyzed existing concrete materials testing, and performed initial structural engineering for the proposed Recreation Deck Project. Mark Baldus also participated in the site walk. The primary purpose of this site visit was to identify major areas of concern related to the structural engineering components and systems on the property. It was limited to visual observations and did not include materials testing.

Waterproofing of all building materials on the property is very important. DTR also walked the property outside of areas previously mentioned in the other projects above.

OBSERVATIONS

The DTR report covers other areas of the property, as previously mentioned in the Recreation Deck Project section. KCE Matrix also provided [Structural Opinion](#) Letter dated April 15th, 2021 based on the site walk on March 17th, 2021. (See the Attachments Log.)



All three towers, the Recreation Deck, tower plaza decks, and Promenade areas were walked during the site visit.

Waterproofing is necessary to move water to a drain and prevent it from leaking onto the deck below. The photo to the left shows waterproofing failure in one of the planter boxes in a Plaza deck area. This condition is typical throughout the property in planter areas. Similar planter boxes are located adjacent to all tennis court areas on above-grade deck areas.

The KCE report provides additional details and photos of various areas walked including:

- Mechanical room ceiling (Boiler Room)
- Podium Deck
- Residential Towers

ASSESSMENT AND DISCUSSION

Limited areas within the property have concrete spalling. Repairs may be addressed in another project, such as the Façade Repair Project.

The following photo on the below left shows a failed landscape retaining wall. Failure is likely due to a combination of factors, including concrete spalling from corroding rebar and landscape irrigation that keeps the area wet most of the time.

The photo on the below right is the underside deck of the Center Tower mechanical and cooling tower structure (Boiler Room). The ceiling is supplementally supported by shoring (not shown) located in the center of the lower room. The concrete and structural rebar is in poor condition and repairs are necessary. See the KCE report for additional details.



The damage shown the above photos may be found in numerous areas throughout the property. A complete concrete spalling survey should be performed to identify all locations.

Throughout the property, planter boxes are leaking onto the concrete decks. This leaking exacerbates the structural degradation of the concrete below. As previously mentioned, the waterproofing below the planter box is in similar condition. Landscape irrigation water runs year-round, and as a result, is compromising structural integrity.

RECOMMENDATIONS

HCC recommends conducting a spalling survey to identify concrete that may need repair. After that, an engineer could design a repair protocol and the project could be bid to determine the cost.

The waterproofing in elevated planters throughout the property should be repaired or replaced. MCC could consider demolishing the in-place planters and installing large, pre-cast planters or pots. Large pots can be managed more easily and are still visually attractive.

EXCLUSIONS AND CLARIFICATIONS

MCC has provided HCC with copies of all previously created documents. The documents of importance referenced in this PCAR are also listed in the Attachments Log. HCC has requested and attempted to obtain any and all relevant documents that may provide knowledge of the property's condition. Per the contract between MCC and HCC, MCC has granted HCC use of all documents referenced within this PCAR and MCC has obtained authorization for this use.

MCC has property condition reports for various components reporting on the property conditions that go back nearly 20-years. Not all reports were used in the creation of the PCAR and not all are referenced in the Attachments Log. This PCAR is not exhaustive, and it is likely that over the past 50 years since MCC was constructed, other reports may have been created that have been lost. HCC retains the right to modify this PCAR at any time without MCC approval. Requested modifications of this PCAR will be made per the terms of the original contract between HCC and MCC. Should any conflicts exist between this document and other consultants' findings, the more conservative recommendation shall govern.

This PCAR contains rough order magnitude values for making repairs or renovations. MCC understands and agrees that said estimates are included solely as a guide and MCC is not to consider, understand, or utilize them as representing actual costs associated with making such repairs. MCC further acknowledges and agrees to hold harmless HCC in connection with any values that may overstate or understate the actual cost of any repair, even if said overstatement or understatement is due to HCC's negligence. Regardless of any such values, MCC should obtain further qualification of any cost estimates from an appropriate contractor, tradesperson, or other professional.

Should you have any questions, please contact us at 503-610-2062.

Sincerely,

HOA CONSTRUCTION CONSULTING



Ryan Eck, CCM
President

Attachments: Attachments Log