

**RESERVE STUDY LEVEL II  
UPDATE WITH VISUAL SITE INSPECTION**

Prepared for:

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## 1.0 INTRODUCTION

Highlands Condominium Association through Eric Lundin-manager, authorized Criterium-Pfaff Engineers to conduct a Reserve Study Level II: Update with Visual Site Inspection for Highlands Condominiums, located in north Spokane, WA. Studies of this nature are important to ensure that a Homeowners Association (HOA) has sufficient funds for long-term, periodic repair and replacement requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the HOA in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the owners.

Typically, a community association has **two broad cash requirements: the general operating reserves and the repair and replacement reserves**. In this report, we will focus on those items falling under the repair and replacement reserve criteria. We have projected a repair and replacement reserve for thirty (30) years. The first ten years are the most reliable. This study should be updated annually.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life to those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current repair and replacement reserves funding program for the community. Funding program recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general.

The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed. Therefore, the report should be read in its entirety in order to fully understand all of the information that has been obtained.

## 2.0 EXECUTIVE SUMMARY

This housing project consists of 46 units in six buildings plus five carports, paved driveways and parking areas, a swimming pool, and clubhouse with restroom and laundry facilities. As we understand, this complex was originally constructed in 1975.

For your convenience, we have prepared the following summary of the condition of the major systems of the property. Please refer to the appropriate sections of this report for a more detailed discussion of these systems.

The buildings and grounds are generally in good condition and have been well maintained. Some large expenditures will be needed in the not too distant future for replacing common elements such as the wood/lattice fence, the townhouse and carport roofs, exterior painting along with other ongoing repairs and replacements. Some other maintenance items are discussed in this report that should be addressed.

Currently regular monthly contributions of \$1,150.00 are being made to the repair and replacement reserves. Based on our evaluation, **the current level of funding of the reserve for the common areas is adequate until 2025 when it becomes negative and a funding increase is recommended.** A more detailed analysis of the reserve funds has been provided in Appendix A.

There are, of course, other repair and replacement expenditures to be expected over the next thirty years. Those items that will require attention are discussed in detail in this report and can be found in their appropriate sections.

## 3.0 PURPOSE & SCOPE

### 3.1 Purpose

The purpose of this study is to perform a Reserve Study and Reserve Fund Analysis and to determine a capital needs plan. It is intended to be used as a tool for The Highlands Condominium Association in determining the allocation requirements into the reserve fund in order to meet future anticipated repair and replacement expenditures for the community.

This report forecasts obligations for the community thirty years into the future. It should be noted that events might occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. Therefore, a study such as this should be updated often, in order to reflect the most accurate needs and obligations of the community. This study should be updated annually.

### 3.2 Scope

This study has been performed according to the scope as generally defined in our proposal dated 12 August 2016, and discussion with Eric Lundin. The findings and recommendations are based on interviews with the community's management personnel; a review of available documents; and an investigation of the buildings and site.

The scope of work meets the requirements presented by the State of Washington Condominium Act, RCW 64.34.382. This study was prepared by a Reserve Study Professional, as defined by State of

Washington, RCW 64.34.380.

The guidelines used to determine which physical components within the community are to be included in the component inventory are based on the following general criteria:

1. The component must be a common element, or otherwise noted to be the responsibility of the Association to replace.
2. The component must have an estimated remaining useful life of thirty years or less. As the site ages, additional components may need to be added.
3. The funding for replacement should be from one source only, not funded from another area of the budget or through a maintenance contract.
4. The cost of replacement should be high enough to make it financially unsound to fund it from the operating budget.
5. Components which are considered deferred maintenance, are most appropriately funded from the Operating Budget instead of Reserves.

Our reserve study analysis included evaluating the following community property:

- Site and Grounds – Sign, paved parking lots and driveways, sidewalks and curbs, fences, pool fence, carports, drainage, major landscaping, and site lighting.
- Building Envelopes - Roofs and drains, fascia, soffits, exterior walls, common stairways and walkways.
- Amenities – Exterior decks; clubhouse electrical system, plumbing system, interiors, laundry facilities, HVAC systems, windows and doors. Swimming pool, pump and filter, cover, surrounding concrete flatwork.
- For a complete inventory, please see Appendix B. The common element inventory was obtained from Eric Lundin as well as our inspection of the site.

This study estimates the funding levels required for maintaining the long term viability of the facility. Our approach involves:

1. Examining association managed equipment, buildings and site facilities.
2. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
3. Estimating repair or replacement costs (in today's dollars) for each repair and replacement item.
4. Using data developed in the above steps to project Capital Reserve balances for Years 1 through 30.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the HOA. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a

### 3.3 Sources of Information

significantly larger scope than this effort. For additional limitations, see Section 8.0.

Onsite inspection of the property occurred on the following date:

- 29 September 2016.

The following people were interviewed during our study:

- Eric Lundin, representing the homeowner's association

The following documents were made available to us and reviewed:

- Building architectural plans
- 2011 Reserve Study Update Report-David Bach & Associates
- 2008 Utility Layout Report-Brumbach Construction, Inc
- CC&R's dated 2006

We based our cost estimates on some or all of the following:

- R.S. Means
- Our data files on similar projects
- Local contractors
- Information provided by the association

### 3.4 Standards of Reference

For your reference, the following definitions may be helpful:

*Excellent:* Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

*Good:* Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

*Fair:* Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

*Poor:* Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

*Adequate:* A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

*Reserves* - Non-annual maintenance items that will require significant expenditure over the life of this study. Included are items that will reach the end of their estimated useful life during the course of this forecast, or,

in the opinion of the investigator, will require attention during that time.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of the complex and facing it.

#### 4.0 DESCRIPTION

This housing project consists of 46 units in six buildings reportedly built in 1975. Two of the buildings house two-story townhouse style units, one building includes the clubhouse/poolhouse and one unit, and three buildings are three story structures with multiple units. The buildings include storage closets.

The clubhouse provides amenities including mailboxes, restrooms, laundry facilities, water heater, fenced outdoor pool, and includes a maintenance shop. This building is served by a fire sprinkler system.

Five wood and metal framed carport structures are located throughout the complex.

The buildings have painted cedar faced panel siding. Exterior windows are vinyl framed thermal pane units. The exterior doors are metal clad, insulated units. A local fire alarm system with alarm pulls and audible alarms is located at the stairways of the three-story buildings.

The townhouses and carports have low slope roofs with wood shingle mansard roofs. The roofs are torched down granular asphaltic sheets. The clubhouse building and three-story buildings have pitched roofs with asphalt composition shingles. All units have wood framed decks with metal/glass railings.

Vehicle access is provided from two entries from Northridge Court. A stone and concrete entry monument sign is constructed at the first entry from Northridge Ct. The asphalt paved driveways lead to the five carports and open parking areas. An emergency exit is also provided through wooden gates leading to the nearby woods. The north and west property lines are protected by a lattice and wood perimeter fence.

Concrete sidewalks lead from the parking areas and carports to the townhouse building entries, to the covered common walkways and stairways leading to the unit entries. The stairways have wood stringers with concrete treads. Sidewalks and wood/composite walkways lead to two sun decks provided between the three-story buildings.

The property is situated on a moderate slope downward from the northeast to the southwest. A steep slope downward lies to the south. Grass lawns, trees, bushes, stone beds, and flowers are maintained around the complex. The planted areas are generally surrounded by cast-in-place concrete curbs. Two dumpster enclosures and pads are provided at the complex.

A storage shed is located at the north side of the clubhouse and contains lawn and snow removal equipment.

## 5.0 OBSERVATIONS

The following observations were made about the current condition of the common elements.

### Site and Grounds

The asphalt paved driveway and parking areas are in good condition. We understand that the driveways and open parking spaces were resurfaced in 2014 with new asphalt. The carport spaces were not resurfaced and have typical areas of oil staining with slight oil/gas related deterioration but are in satisfactory condition.

We recommend the application of a squeegee applied, polymer modified asphalt emulsion sealant to all asphalt paved surfaces on a six-year cycle. This cycle is scheduled to begin in 2020 and should include parking space striping. Yearly, as part of regular maintenance, all asphalt cracks that appear should be cleaned and sealed to help prevent moisture related deterioration of the sub grade.

Residential asphalt typically has an estimated useful life (EUL) of approximately 25 to 35 years. We have anticipated the need for chip sealing the private asphalt streets in 2039 assuming regular sealing and crack repairs are accomplished in the interim. Studies indicate that if the subgrade and asphalt are in good structural condition, chip sealing provides a good wear and traction surface at a lower cost than a complete overlay.

Water is the major cause of asphalt deterioration. Water should drain away from the asphalt. Areas with water found to be “ponding” on the asphalt should be built-up, sloped, or otherwise drained to prevent destabilizing the sub-base which will lead to cracking.

We have based our asphalt repair estimates on current local estimates and those published by RS Means. With asphalt pricing based on oil prices and extremely volatile, these estimates may vary widely from the actual cost at the time of the work.

The concrete pedestrian sidewalks around the complex are in fair to good condition. Several areas of settlement have caused elevation differentials between adjacent sections which could present tripping hazards. Many areas have been repaired by grinding and we understand that additional areas will be repaired this fall.

The curbs are in generally good condition, with small areas of typical damage. We understand that one damaged area will be repaired this fall.

The dumpster pads are in good condition.

Concrete flatwork has a published expected useful life (EUL) of 30 years, however, we believe in this area and this situation, the sidewalks and curbs can last indefinitely with regular maintenance. This places their replacement outside of the 30 year analysis. We have allowed for spot repairs and replacement of damaged or deteriorated sections (5% of the total) in year 10 of the analysis and every 10 years thereafter.



Common area fencing in includes the wood and lattice fence between the complex and adjacent properties to the north and west. The fence uses wood posts for support that appear to be non-treated. There are areas of missing lattice which we assume will be replaced from the operating budget. Wood fences have a published expected useful life of 12 years. These are probably well beyond that. We have planned for replacement of the fence in 2019 using a vinyl privacy fence with an expected life of 40 years.

The chain link fence surrounding the pool area is in good condition. This fence has an EUL of 40 years and appears to be relatively new. We have planned for its replacement in year 2037. The west side garbage enclosure fence is similar to the lattice/wood fences discussed above. They have some damage present due to deteriorating boards. We have planned for their replacement in 2019 along with the perimeter fence.

The entry monument appears to be a concrete and concrete block structure with faux stone veneer and metal letters. The monument is in good condition. Annual inspections and any needed repairs to the monument should be carried out. These should be relatively low cost items from the operating budget. It appears that there may be a gap which could allow moisture entry at the top horizontal block. This should be sealed. With regular maintenance, this monument should last indefinitely.

The metal lettering should last indefinitely, however in our experience, vandalism resulting in damaged or missing letters and signs may occur. We have allowed \$1000 to replace damaged or missing letters and signs in 2020 and every 10 years thereafter.

In general, the landscaping is in fair to good condition. We have allowed \$2000 for major landscaping needs such as tree removal or replacement every 5 years.

The concrete drywell structures in the driveways were not inspected. These should have an indefinite life. These will need to be cleaned out from time to time, depending on the amount of debris in the runoff that accumulates in the well.

We observed that the metal handrails along the sidewalk steps are missing at the west side of the pool area. It appears that corrosion of the metal resulted in splitting the concrete. These railings should be replaced in 2017. The other metal railings should be kept well painted at the base with a corrosion resistant coating. To help reduce corrosion of these railings and the stairway tread brackets, consideration should be given to using non-corrosive de-icer during the winter.

Site lighting is provided by 19 pole mounted fixtures located around the common areas and driveways, as well as a flood light mounted on each of the carports. The pole lights and flood lights have an expected life of 25 years. Exterior lighting was not observed at night, but appears to adequately cover the parking and pedestrian areas. They appear to be in good condition at this time. We have planned for replacement of the exterior lights in 2026 although replacement will likely be gradual as needed.

Our study does not include routine landscaping, irrigation systems, carport lighting fixtures, and electrical equipment which we assume to be maintained from the operating budget.

### **Structure**

The basic construction of the condominium buildings consists of concrete perimeter foundation walls and slabs on grade supporting the exterior walls and roof loads. Interior bearing walls also support the upper floors.

The carports are constructed with a post and beam system using metal columns set in concrete footings to support wood beams and the roof system.

Where visible, the foundation walls and slabs are in good condition. There are a few cracks which is typical for buildings in this area. These are not a structural concern and likely due to normal settlement. The estimated useful life for concrete foundations is 50+ years.

The interior framing was generally not visible. We did not enter the units or attic spaces. We saw no indication of significant structural problems which need to be addressed in this study.

There did not appear to be any issues of concern regarding repair and replacement expenditures for the structural systems for the buildings at the time of the investigation.

### **Roofs**

We viewed the roofs of the clubhouse building and the three story buildings from the ground. We accessed the roof of the north townhouse building. Where visible, the low-slope townhouses have a torched down granular asphaltic sheet roof surface. This roofing is in fair to good condition overall. We understand that a roof inspection was performed this past year and found some areas of "alligator" cracking that will be repaired. It is our experience that once this occurs, the roofing life is limited. We also observed areas of alligator cracking at the south facing parapets. These roofs have an expected life of 20 years. With these repairs, we have planned for townhouse roof replacement in 2025.

The pitched clubhouse and 3-story building roofs are asphalt composition shingles and appear to be in good condition. We understand that some damage occurred this past year during the windstorm but has been repaired. These roofs have an EUL of 25 years. We have planned for their replacement in 2030.

The carport roofs are low-slope roofs with torch down granular asphaltic sheet surfaces. These are in fair to good condition. As above, the south facing areas of the roofs have cracking present. One area appears to have been repaired recently. The cracked areas should also be repaired this year. We have planned for replacement of the carport roofs in 2025 along with the townhouse roofs.

The townhouses and carports have wood shingle mansard roofs which are showing signs of aging. We have planned for these to be cleaned and treated with a preservative in 2017. Replacement of these shingle mansard

roofs is planned for 2025.

Runoff from the low sloped roofs flows to overflow scuppers at the edge of each building and drain to the ground. The pitched roofs drain to the ground.

For maximum life, we recommend annual roof inspections and maintenance by a qualified roofing contractor.

### **Exterior Finishes**

The building exteriors are covered primarily with painted cedar-faced panels with small areas of stucco. The wall surfaces are in generally good condition with a few small areas of missing/peeling paint. These should be touched up as needed. Annual maintenance should include inspection and repair of damage and cracks in the stucco and caulking, contact with vegetation, etc. With good maintenance, the siding can last indefinitely.

The expected useful life of the exterior paint varies widely with the type of paint and location. Since the paint is in generally good condition we have assumed an EUL of 8 years. We have allowed for caulking and repainting the siding in 2022 and every 8 years thereafter. When painting, it is important to include any chimneys and other structures above the roof which are often forgotten.

The wood trim is in generally good condition. The south exposures of the deck rim joists are badly weathered and need to be aggressively maintained. The beams extending from the clubhouse building ridges and eaves are exposed to the weather. These should be capped with flashing to protect against further deterioration which could eventually extend into the buildings. This should be a relatively minor cost to be paid from the operating budget.

The entry stairways are in fair to good condition. Approximately 15 of the concrete steps have deterioration present and should be replaced very soon. We have included an allowance for step replacement every 5 years beginning in 2022. Maintenance of the stairs is important. The metal step support brackets should be kept cleaned of corrosion and well painted. The wood stringers need to be kept dry and well painted to avoid rot. With good maintenance, the stairway stringers should last indefinitely.

The stair and walkway railings are in generally good condition. We noted a small area of rot at one of the bridge handrails that should be replaced from the operating budget. With good maintenance and spot replacement, these should last indefinitely. Handrail painting is planned for along with the siding every 8 years. We observed that the spacing between the handrail pickets is approximately 6 inches. Current codes require an opening of no more than 4 inches. While this was constructed before these codes were in place, an awareness of the current requirement is needed for any new or reconstruction and as a possible safety issue.

We were told that the windows are the responsibility of the association. These appear to be relatively new, vinyl framed, thermal pane units. These should provide an EUL of at least 30 years. The exterior doors appear to be in good condition with an EUL beyond the study period. While a few

windows may develop seal leaks which will require replacement over the years, we believe the windows and doors should provide service throughout the study period.

The condominium decks/balconies are limited common elements which are generally maintained by the unit owners. The deck structures were viewed from the ground. They appeared to be in generally good condition. As noted above, the south facing rim joists have extensive weathering and should be inspected regularly. Some may need to be replaced in the next 5 years or so. We have included an allowance for structural deck repairs every 5 years. The glass and aluminum deck railings appear to be approximately 10 years old. These have an EUL of 40 years and should provide another 30 years of service with good care.

The common sun decks appear to be relatively new and are in generally good condition. The deck framing is treated wood which should provide an expected life of 30 years. Deck replacement is planned for 2040. The composite decking should provide an expected life of 25 years. We expect spot repairs of the decking to be paid through the operating fund and have anticipated full decking replacement along with the deck replacement in 2040. The railing should provide an expected life of 30 years and is planned for replacement along with the decks. There are some uneven areas in the decks. Most of this appears to be due to settlement of some of the piers supporting the decks and not due to a serious structural problem. Some of the unevenness is due to excessive joist spacing under the decking, particularly at the gangways. Most composite decking requires joist spacing of 16 inches. Additional support should be provided under these areas. This should be a low cost item funded from the operating budget.

Many of the small metal vents through the siding are bent which leaves very little opening for airflow to pass through. We do not know the purpose of the vents, but these bent vents should be replaced to allow proper airflow. This is a minor cost to be funded from the operating budget.

We also noted that several of the bathroom vent hoods had partially open "flappers". This could allow bird and insect entry. The exhaust ducts should be cleaned regularly as part of normal maintenance.

The steel carport columns appear to be in good condition. Steel carport columns in our area are known to have failed due to corrosion at the bases and should be kept well painted with corrosion resistant paint. Any standing water at the columns should be remediated as they can also corrode from the inside. These areas are assumed to be touched up with funds from the operating budget. The carport beams appear to be in good condition. Painting of the carports is planned for 2021 and every 8 years thereafter.

The maintenance shed is in good condition. Sheds of this type can deteriorate quickly if not well maintained. We have planned for its replacement in 2041.

### **Building Interior**

Interior common elements include clubhouse interiors. The clubhouse

interior is in fair to good condition. Some of the showers, bathrooms, and saunas have been abandoned and/or are no longer used or maintained. We have not included these in our analysis. The vinyl flooring at the mail area/entry hallway is aging. We have planned for its replacement in 2019. General maintenance and painting of the clubhouse interiors is assumed to be funded from the operating budget. The tile laundry and bathroom floors should provide service throughout the study period. The exposed clubhouse exterior doors and windows are in good condition. The windows appear to be relatively new. With an expected life of 30 years, we have planned for door replacement in 2031. The mailboxes are older, but since they are inside, and precluding any damage, should provide service through the study period.

The clubhouse bathroom is in generally fair to good condition. Some ceiling damage appears to be in the process of being repaired over the toilet. This sink is chipped. We have included an allowance for bathroom fixture and partition renovation in 2023 and again in 15 years.

Two of the 4 washing machines were new in 2015 and the other two are older. The four dryers are older with unknown age. These machines have an EUL of 15 years. We have planned for replacement of the older units in 2021, and every 15 years thereafter.

The dryer vents should be cleaned regularly.

### **Mechanical**

Common mechanical systems include the clubhouse electric baseboard heaters. These are in good condition. With regular maintenance, the baseboard units should provide a service life of 40 years. We have planned for placement of the baseboard heaters in the hallway, laundry and restroom in 2026.

The fire sprinkler system piping and valves have expected lives beyond the study period.

### **Electrical**

Common electrical installations are assumed to include electrical panels and wiring to the individual buildings and units, exterior lighting, and the clubhouse electrical wiring, and the clubhouse fire alarm panel.

The switchgear and panels are in good condition. These have 50+ year lives, well beyond the study period. Electrical wiring to the individual buildings and units is generally not visible. Electrical wiring has an EUL of 100+ years and is outside of the analysis period.

The clubhouse pool system electrical panels have some corrosion present. While not serious, this should be kept under observation. We assume that these will be maintained from the operating budget.

The clubhouse fire alarm panel has an EUL of 25 years. It appears to be original to the building. We have planned for its replacement in 2025. The backup battery in these panels has a typical life of 5-10 years and should be

replaced regularly from the operating budget.

For discussion of the exterior lighting, refer to the “Site and Grounds” section of this report.

### **Plumbing**

The property is served with city water and sewer service. Common elements include the underground water and waste piping serving the buildings and units, as well as the clubhouse piping and fixtures. Irrigation is understood to be maintained from the operating budget.

As with the electrical wiring, the piping is generally not visible. Distribution piping and waste piping has an expected useful life of at least 50 to 70 years and is considered to be outside of the analysis period. As the piping ages, some problems will arise, particularly sticking shut-off valves, and corroded connections. We have included an allowance every 5 years for significant plumbing repairs that are beyond the scope of the operating budget.

The clubhouse plumbing includes the bathroom fixtures and water heater. The kitchen and bathroom fixtures are included in the interior discussion above. The water heater has an expected life of 15 years and is dated 2008. We have planned for its replacement in 2024.

### **Amenities**

Amenities at this complex include the clubhouse, laundry, and the outdoor pool.

The clubhouse exterior, roofing, and interior as well as the laundry machines are discussed in the respective sections above.

The non-heated outdoor pool was covered and winterized at the time of the inspection. We were told that it is a fiberglass pool. Fiberglass pools have an EUL of 25 years. We have allowed for fiberglass repairs in 2025 and every 10 years thereafter. The concrete deck is in generally good condition and should provide service beyond the 30 year analysis period. The pool cover is relatively new with a seven year expected life. The cover is planned for replacement in 2023.

The pool equipment includes the pump, drain, controls, and filtering system. The pump, drain, and filtering equipment have an estimated life of 15 years. It appears to be relatively old. While these may last significantly longer, we have planned for replacement in 2025.

Pool furniture includes two outdoor dining sets. We have planned for their replacement in 2027.

Pool piping is considered to be maintained by the operating budget.

A community owned snow blower appeared to be in good condition. We estimate this to have an EUL of 15 years. We have planned for its replacement in 2027.

Using software developed by Criterium Engineers and KPMG Peat

## **6.0 RESERVE FUND ANALYSIS**

Marwick, we have analyzed capital reserves draw-down for the projected repair and replacement expenditures. The following is a projected reserve fund analysis for non-annual items. This projection takes into consideration a reasonable return on invested moneys and inflation. Please review this thoroughly and let us know of any changes that may be desired.

The intent of this reserve fund analysis is to help the Association develop a reserve account to provide for anticipated repair or replacements of various system components during the next 30 years.

The repair and replacement items listed are those that are typically the responsibility of the Association. However, association by-laws vary, and therefore, which components are the responsibilities of the homeowner and which are the responsibilities of the Association vary. The Association should confirm that the items listed are to be financed by the reserve account.

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate and rate of return on the reserve account.
- A table that lists anticipated replacement and/or repair components complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.
- A table and graph that represent end of year balances versus repair and replacement expenditures based on your current funding program and reserve balances, and alternatives. The provided graphs illustrate what effects the funding methods will have over the presented 30 year period versus the anticipated repair and replacement expenditures. Care should be taken in analyzing the graphs due to varying graphic scales that occur within each graph and between graphs.
- You should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments. We suggest and have assumed maintaining a minimum reserve balance of \$10,000.00. We also suggest and have assumed maintaining a funding percentage of between 50 and 70% through the majority of the term.

As required by Washington State RCW 64.38.070, we disclose that the interest rate used in the analysis is .008% and inflation rate is 2.0% based on input provided by association representatives. We have included three options with three baseline alternatives to your current funding program as well as the RCW mandated full funding plan (100% funded at the end of the 30 year term) and recommend that the Association adopt an alternative that best reflects the objectives of the community. Please keep in mind that there are a myriad of possible alternatives. In summary they are as follows:

**Current Funding Rate:** Currently, regular contributions of \$1150.00 per

month are being made. With a reserve fund balance of \$46,724.91 as of July 28, 2016. This will result in a negative ongoing balance in 2025.

- **Alternative 1:** Increase the contribution to \$1,656.00 per month (\$36.00 per unit per month) immediately then increasing \$368.00 per month at the end of year 4 and again after year 8 to \$2,392.00 per month (\$52.00 per unit per month). This will maintain the minimum balance.
- **Alternative 2:** Increase the contribution to \$1,610.00 per month (\$35.00 per unit per month) immediately, then increasing 18% at the end of years 4, 8, and 12 to a final contribution of \$2,645.00 per month (\$57.50 per unit per month). This alternative will maintain the minimum balance with an exception in year 2030.
- **Alternative 3:** Maintain the current contribution of \$1,150.00 per month through the period. A special assessment of \$75,000.00 (\$1,630 per unit) is applied in year 1, another special assessment of \$125,000.00 (\$2,717.39 per unit) is applied in year 10 and a third special assessment of \$125,000.00 is applied in year 20. This alternative will maintain the minimum balance with the exception in the final year 2045.
- **Full Funding Plan:** Increase the contribution to \$1,656.00 per month (\$36.00 per unit per month) immediately then apply a \$121,600.00 special assessment in year 1. Increase the contribution \$100.00 per month at the end of year 4 and again after year 8 to \$1,856.00 per month (\$40.34 per unit per month). This will achieve 100% (full) funding at the end of the term.

## 7.0 CONCLUSION

With no increase in contributions, the development will become underfunded with a negative balance in 2025. An increase before that time is recommended.

In summary, the common elements are in generally good condition and well maintained. With attention to the items in this report and with good maintenance, they should provide adequate service throughout their useful lives. Some items need near term repair and/or replacement as discussed in the report. Three suggested alternatives as well as a mandated full funding alternative are provided for the development.

## 8.0 LIMITATIONS

Per the State of Washington, RCW 64.34.380, the following disclosure has been included herein:

*“This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.”*



The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of Highlands Condominium Association. Criterium-Pfaff Engineers does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium-Pfaff Engineers harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not undertake to completely assess the stability of the buildings or the underlying foundation or soils since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We did not investigate the following areas:

- Buried utilities or infrastructure
- Concealed structural members or systems
- Interiors of condominiums and storage areas.
- Attic spaces
- Swimming pool was covered.

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

In our reserve fund analysis, we have provided estimated costs. These costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop estimates. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists. Actual costs can vary significantly, based on the availability of qualified contractors to do the work, as well as many other variables. We cannot be responsible for the specific cost estimates provided.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project.

If you have any questions about this study, please feel free to contact us. Thank you for the opportunity to be of assistance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ken Pfaff".

Kenneth Pfaff, P.E.  
Criterium-Pfaff Engineers