

**DRAFT**

**BUILDING EVALUATION  
AND  
RESERVE FUND STUDY**

*AVERA PLACE CONDOMINIUM ASSOCIATION*  
Raleigh, North Carolina

Prepared for

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***9/3/08***

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## 1.0 INTRODUCTION

The Avera Place Condominium Association and Wilson Property Management authorized Criterium–Giles Engineers to conduct a Building Evaluation and Reserve Fund Study for the Avera Place Condominiums located in Raleigh, North Carolina. Studies of this nature are important to ensure a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the home owners.

Typically, a community Association has two broad cash requirements: the general operating reserves and the capital repair and replacement reserves. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria. We have projected a capital repair and replacement reserve for twenty years. The first ten years are the most reliable. Such a study should be updated every five years.

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 capital 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.

The recommendations in this report should also be tempered by any agreements in the bylaws or other documents related to the development and ownership of this Association.

## 2.0 EXECUTIVE SUMMARY

The buildings and grounds are generally in fair-to-good condition. In this section of the report, we will address those issues that, in our opinion, will require immediate repair or replacement. For a more detailed discussion of all of our findings and any other material deficiencies that will require repair or replacement over the term of this study, refer to the appropriate sections of this report.

Based on our evaluation, the current level of funding of the reserve for this project is not adequate. A more detailed analysis of the reserve fund has been provided in Appendix A.

Based on our observations, there are some immediate major and minor material deficiencies. Those items are as follows:

- Erosion near the stormwater ponds and inadequate groundcover on banks within the community and at the front left signage wall needs repair in the near term.
- Flashing at the siding to brick interface on multi-story buildings appears inadequate and should be repaired in the near term.
- Minor expenditures for new tennis court nets and vinyl siding repair are anticipated in 2009/

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

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.

PROPERTY SUMMARY			
SYSTEM	CONDITION	ACTIVITY REQUIRED	ANTICIPATED YEAR OF ACTIVITY
<b>SITE</b>			
Private roads	G	repair/reseal/resurface	2010-2024
Concrete gutter	G	repair	2009-2024
Concrete sidewalks	F-G	repair	2010-2025
Drainage and sprinkler systems	F-G	repair	2012-2025
Pond Maintenance	F-G	dredge/clean	2011-2026
Fencing	G	replace	2023
<b>STRUCTURE</b>			
Foundation/Framing	F-G	stabilization	2018
<b>EXTERIOR</b>			
Roofing and gutter systems	G	replace	2022-2026
Paint trim and rails	F-G	repair/replace	2010-2024
Siding, flashing, awnings	P-F	repair/replace	2009-2027
PVC rails and fences	G	replace	2017-2023
<b>MISC. AMENITIES</b>			
Mailboxes	G	replace	2029
Swimming pool and equipment	G	paint pool and replace pumps, filters	2011-2023
Tennis courts	G	resurface	2024
Fitness equipment	F-G	replace	2018
Clubhouse HVAC	G	replace	2018
Clubhouse painting and finishes	G	repaint and replace	2011-2018
Clubhouse fixtures	G	replace	2023
Putting green & playground equip	G	replace	2012-2028

**Table 2.1: Summary**

### **3.0 PURPOSE & SCOPE**

#### **3.1 Purpose**

The purpose of this study is to perform a reserve fund analysis and to determine a capital needs plan. It is intended to be used as a tool for the Association and Wilson Property Management in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community twenty 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 from time to time, usually on a three to five-year cycle, in order to reflect the most accurate needs and obligations of the community.

#### **3.2 Scope**

This study has been performed according to the scope as generally defined by the Association, Wilson Property Management, and Criterium-Giles Engineers. The findings and recommendations are based on interviews with the community's management personnel and maintenance coordinator; a review of available documents; and an investigation of the buildings and site. The investigation involved, in particular, the foundation, the roof, the exterior walls, paved areas, utilities (to the extent visible), private roads and sidewalks, pond and common amenities.

The report contains the following:

- A description of the overall condition of building components and systems that are the responsibility of the Association, and conditions that may limit the expected useful life of the buildings and their components.
- Information about significant deficiencies, deferred maintenance items, and material code violations based on a visual survey of the building and grounds, research of documents, and conversations with people who have knowledge about the community.
- A reserve fund analysis including a component inventory, anticipated remaining component useful life, anticipated component repair or replacement costs, and forecasted fund levels as a result of those anticipated costs.

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 Association. 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 significantly larger scope than this effort. For additional limitations, see Section 11.0.

### 3.3 Sources of Information

Onsite inspections of the property occurred on the following dates:

- July 31, 2008
- August 18, 2008
- August 28, 2008

The following people were interviewed during our study:

- Jeb Black (Wilson Property Management)
- Colleen Cox (Wilson Property Management)
- Mike Waters (Maintenance Manager)

The following documents were made available to us and reviewed:

- Avera Place Site Plan
- Wake County tax records regarding land owned by Association and footprint of townhome units
- Covenants on file with Wake County
- Reserve funds held by Association (8/2008)

### 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.

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 a building and facing it.

*Repair/Replacement Reserves* - Non-annual maintenance items that will require significant expenditure over the life of the buildings. 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.

#### 4.0 DESCRIPTION

Construction of the buildings within Avera Place began as an apartment complex. The units were converted to individually owned condominiums and town homes with sales beginning in 2003. The tract currently consists of 345 units located within 60 buildings. The buildings and common grounds are constructed on an approximately 50-acre site with moderate topographical change.

Each multi-story building houses individually owned condominiums. Each town home includes a garage. The property has one access road (Salem Glen Lane) off of TW Alexander Drive in northeast Raleigh. Salem Glen Lane and the streets within the development are private streets with road maintenance the responsibility of the Association.

The streets are asphalt paved with concrete curbing/gutter along each side of the streets. Concrete paved sidewalks are located and provided along the streets. Each town home unit has a concrete paved driveway extending from the road to the garage. Unit entries consist of concrete stoops.

Storm water drainage is routed to a combination of catch basins located in the grassed areas and streets and to five storm water ponds located in lower elevations of the development.

Keystone retaining walls were noted on the property southwest of the townhome buildings along Avocet Lane and Gordon Glen Court.

The buildings are of stick-framed, bearing wall construction with concrete slab-on-grade foundations. As no drawings were available for review, any comments made on the structural systems in the community are derived from how the community appears to be constructed. Roofing surfaces consist of 3-tab asphaltic fiberglass shingles and an aluminum gutter and downspout system. Attic ventilation is provided by roof ridge vents, gable end vents and soffit ventilation.

The exteriors of the buildings are comprised of a combination of brick veneer, manufactured stone, and vinyl siding. The fascia and soffits are vinyl covered. Wood, composite and vinyl trim were also noted on each building. Windows are vinyl clad, double-hung, thermal pane units. The front entry doors are metal and glass. Rear doors include single metal and glass doors, as well as double sliding and French doors. Garage doors are metal, and shutters are vinyl. The front stoops on the rear-access, three bedroom units incorporate vinyl fencing near the front door. Some units include a PVC railing leading to the front entry.



Electrical service is underground and metered individually at each residence. Water is also metered individually at each residence. A mailbox center with a small structure is located near the center of the community.

The property also incorporates a clubhouse with laundry room, swimming pool and associated equipment, two tennis courts, putting green, fitness center, mail center and car care building.

The property is served by the following utilities and providers:

COMMUNITY UTILITY PROVIDERS	
Potable Water	City of Raleigh
Sewer	City of Raleigh
Storm Sewer	City of Raleigh
Electricity	Progress Energy
Gas	N/A
Oil	Not applicable
Phone	Bell South or other
Trash	City of Raleigh

**Table 4.1: Utility Providers**

**5.0 SITE IMPROVEMENTS**

**5.1 Topography**  
**Description**

The site slopes predominately to the southwest toward the low areas below the fountain at the traffic circle. Additionally, the site near the entrance walls slopes toward the traffic circle. Keystone retaining walls and stormwater ponds are also located at major changes in topography.

**Evaluation & Recommendations**

Except for erosion concerns behind the west entrance wall (discussed in section 5.2 below) we did not find any major erosion that presents an imminent concern; however indications of bank erosion were noted near stormwater ponds, adjacent to site fencing and other areas of the community that have inadequate groundcover.

The keystone retaining walls at the southwest end of the site were inspected. These walls appeared to be in good structural condition and we do not anticipate any major repairs will be required to these walls over the term of this study. Minor repairs or replacement of cap stones may be required, but these should be taken care of from the maintenance and landscaping budget.

**5.2 Storm Drainage**  
**Description**

Storm drainage on the property is routed to catch basins located in the paved and grassed areas and to five stormwater retention ponds located at the north end (2), east end (2) and southwest end of the site. These ponds have heavy vegetation on the banks and dams. Note that most of the ponds

**Evaluation & Recommendations**

were relatively dry during the July inspection, but filled with storm water at the time of August 18 inspection conducted after heavy rainfall.

The grassed areas appear to have slope sufficient for adequate drainage at the time of inspection. Typically, grassed swales will require drainage improvements such as re-sloping or installation of new erosion control measures every seven to ten years.

Annual maintenance costs for retention ponds are generally estimated to be three to five percent of the construction cost. These maintenance costs include inspections of the pond embankments, nuisance control, debris and litter removal, inlet and outlet maintenance and inspection, and sediment removal and disposal. The Association should ensure that the ponds conform to all applicable regulations at all times. We have allocated funds to perform major maintenance (such as dredging if required) on the ponds on a ten year cycle beginning in Year 6.

Most of the site appears to adequately drain to either catch basins or to the ponds. We also noted significant erosion of the rip rap inlet to the pond east of Friedland Place and Condon Glen Court and to the inlet channel to the pond east of Clubhaven Place. We recommend installing more fill and planting erosion-controlling vegetation at the inlet to these ponds in 2009 to prevent further erosion. Additionally, the heavy growth on the rip rap inlet channels to the ponds should be cut down at that time.

**5.3 Paving & Curbing**

COMMUNITY PAVING & CURBING	
Type of Paving	Asphalt private roads circulate throughout the community and lead to the driveways in front of the buildings.
Type of Curbing	Concrete curb/gutter is provided on the both sides of the private streets.
Parking Spaces	Parking is provided in the town home garages and driveways. Additional asphalt paved parking areas are located throughout the community to provide temporary guest parking. No designated/numbered parking spaces on the streets have been provided.

**Table 5.1: Parking Area**

**Description**

The asphalt paved streets within the community are private. Each street is asphalt paved with concrete curb/gutter on both sides. Street signs are welded metal posts with painted metal signs. Maintenance of the paving, curbing and street signage is the responsibility of the Association.

**Evaluation & Recommendations**

No indications of major structural failure were observed in the roads. Minor cracking was noted in some areas, but generally the private roads appear to be in good condition.

Typically, we recommend the application of an oil resistant sealant to all asphalt paved surfaces on a five to eight-year cycle. At this same time, all cracks and potholes should be properly filled, patched, and sealed. This cycle is scheduled to begin in the third year.

We have anticipated the need for re-surfacing the asphalt roadway in the community within the next 13-15 years, with two sealant applications in the interim. The asphalt overlay component typically has an estimated useful life of approximately twenty years.

Minor cracking was noted in the concrete gutter system. We have anticipated various concrete repairs to the curbing to occur on a five-year cycle beginning in the third year.

We also anticipate repairs and painting of the street signage will be required at least once during the term of this analysis (projected for Year 12).

**5.4 Flatwork  
Description**

Flatwork on the site consists of concrete sidewalks throughout the community and a combination of concrete sidewalks and concrete steps leading to the front of the buildings and concrete driveways leading to the garages. Concrete slabs for rear patios are located the 1<sup>st</sup> floor units.

**Evaluation &  
Recommendations**

Some of the concrete flatwork is showing a limited amount of distress typically due to differential settlement. The concrete flatwork will require periodic repairs due to increased settlement, upheaval and damage and we have allocated repair/replacement of 5% of all the concrete sections on 5-year cycle beginning in the third year.

**5.5 Landscaping & Appurtenances  
Description**

Landscaping on the site is reasonably well established with the exception of the grassed areas. The landscaping consists primarily of ornamental trees and shrubs throughout the property, with foundation plantings surrounding many of the building footprints. Note that a sprinkler system provides water only for the landscaped areas at the community entrances. Ground lighting is also provided in these areas.

The small sections of PVC privacy fencing that are perpendicular to the rear face of the buildings were installed by the builder and are assumed the responsibility of the Association. However, privacy fencing or screening installed to enclose the patios behind individual town homes is **not** considered the responsibility of the Association. Additionally, PVC privacy fencing is provided around the solid waste dumpsters within the community.

PVC rail-type fencing is also provided behind clusters of buildings and along the entranceway to the clubhouse and community.

The entrance to the community incorporates two sections of stone wall that include the community permanent signage. A metal sign is also provided in front of the clubhouse. Additionally, a small fountain with a manufactured stone base is in the traffic circle in front of the clubhouse.

A long section of keystone retaining wall observed southwest of the buildings on Avocet Lane and Gordon Glen Court.

**Evaluation &  
Recommendations**

Landscaping on the site is typically maintained through a service contract with an outside servicing company. Seasonal lawn treatment and maintenance, annual plantings, and pruning should be addressed in a general operating/maintenance budget.

Minor repairs to underground sprinkler systems should be funded under the maintenance budget. Major piping and sprinkler head replacement expense has been budgeted in approximately 2019.

We have included funds for anticipated replacement of the PVC site fencing. Over the 20-year term of this analysis, portions of the fencing will be damaged by landscaping activities and wear from the elements. We have allocated funds to replace the site PVC fencing and the PVC screening fences around the dumpsters in Year 15. Note that erosion around the fencing on west side of the entrance road has weakened this section of fencing and this fence should be stabilized in 2009 (funds budgeted under drainage/erosion improvements).

A significant portion of the grassed areas are generally in poor condition and some erosion noted due to inadequate coverage. We have provided funds beginning in 2009 to reseed certain areas around the common areas and multi-story buildings that are eroding. Common area erosion also includes the bank behind the front west entrance wall. Significant fill dirt is required behind this wall.

The keystone retaining walls appeared to be in good structural condition and except for minor repairs to cap stones (maintenance item), no capital reserve expenditures are projected for these walls.

**6.0 STRUCTURE**

**6.1 Structure  
Description**

As no building construction documents were available for review, any comment on the structural systems for the community is based on how the buildings appear to be constructed. The buildings are of stick-framed construction with pitched roofs on concrete slab-on-grade foundations.

**Evaluation &  
Recommendations**

Some cracking was observed in the concrete slab foundations. We noted hairline cracking in many of the building foundations. We noted cracks of 1/8-inch or more in buildings #7, #8, #41 and #42. Note that we performed only a cursory inspection of the visible structural components of each building. All of the building foundations should be monitored for new cracks, or any widening of existing cracks. A structural engineer should be consulted to examine any foundation cracks that widen to approximately 1/4-inch.

We reiterate the importance of ensuring that all stormwater is carried away from the building foundations and positive drainage is provided away from all foundations. Water infiltration under the building foundations can weaken the soil beneath, and lead to accelerated foundation settlement.

## 6.2 Ventilation

### Description

We cannot anticipate the degree of foundation settlement that will occur in all the buildings, but have allocated funds in Year 10 to stabilize limited sections of foundation within the community.

Attic ventilation is provided by a combination of gable end vents, roof ridge vents and soffit vents. Bathroom fans exhaust moist air through vent piping.

### Evaluation & Recommendations

The roof ventilation system was examined at ground level on the buildings. The quantity and location of vents appears to be adequate.

*The Environmental Protection Agency (EPA) has determined that some buildings may be affected by unhealthy indoor air contamination. We do not test for this and cannot provide you with an opinion about the indoor air quality of the buildings on this property as this is beyond the scope of this analysis. However, there are experts who test for indoor air contamination, and we recommend you enlist the services of such a professional should a concern over indoor air quality arise. In order to aid in healthy interior building environments, it is important that attic ventilation be adequate, bathroom, kitchen, and laundry exhausts discharge air directly to the outside, and moisture problems be immediately rectified.*

## 7.0 EXTERIOR SYSTEMS

### 7.1 Roofing Systems

#### Description

The pitched roof surfaces over the buildings are covered in 3-tab asphaltic fiberglass shingles. Roof surfacing is applied over roof sheathing.

An aluminum gutter and downspout system was noted on each building that discharges storm water to grade.

#### Evaluation & Recommendations

Typically, roofing surfaces are assumed to last approximately twenty years. It is our opinion that the expected useful life of the roof shingles in this community will be limited to an additional fourteen-seventeen years of service. Although the shingles likely have a 20-25 year warranty, growing evidence suggests that materials used on other similar construction projects, techniques used during installation of the surfaces, inadequate attic ventilation, and other substandard practices has played a part in shortening the expected useful life of the roof surfaces. We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*, Fourth Edition.

We suggest that the property begin replacing 25% of the shingled roofing surfaces on an annual basis beginning in year fourteen of this analysis. A re-roofing sequence should include removal of the existing shingle surfacing, replacement of any inadequate roof sheathing, replacement of any damaged flashing, and replacement of drip edge components.

Gutters and downspouts are in generally good condition and should not require replacement until the time of roof replacement, as this component

**7.2 Exterior Finishes**  
**Description**

**Evaluation &**  
**Recommendations**

typically provides twenty years of relatively trouble free service. During our inspection, we noted that a section of gutter downspout was missing from building #1 in front of unit 103. These repairs should be completed as part of the operations and maintenance budget.

Water heater and other vent boot units at the roof surface typically deteriorate more quickly than roof shingles. We anticipate that all vent boots will require replacement within the next five to ten years, but should be covered within the operations and maintenance budget.

The exteriors of the buildings are comprised of a combination of brick veneer, manufactured stone, and vinyl siding. The fascia and soffits are vinyl covered. Wood, composite and vinyl trim were also noted on each building. Windows are vinyl clad, double-hung, thermal pane units. The front entry doors are metal and glass. Rear doors include single metal and glass doors, as well as double sliding and French doors. Garage doors are metal, and shutters are vinyl and awnings are included on the multi-story buildings.

The front stoops on the rear access, three-bedroom units incorporate vinyl fencing near the front door. Some units include a PVC railing leading to the front entry. The multi-story 1-bedroom flat buildings include metal stairs with concrete treads and metal railings.

Vinyl siding typically has a manufacturer's warranty of fifty years, although the actual service life can vary greatly. The lifespan depends primarily upon exposure conditions and maintenance. Based on the age of the property, we do not anticipate a need for all the siding to be replaced until after the scope of this study.

We noted during our inspection that the vinyl siding and trim has been damaged in several locations. This is apparently due to mowing and landscaping activities. We also noticed that the siding has pulled away from the building at the top of the left wall on building #52. Also, the siding has buckled on several of the columns in front of buildings #49 - #52. We have made a provision in our budget recommendations for periodic repair of damaged siding.

We also found that the buildings do not have sufficient moisture barrier installed beneath the siding. We did not find that any of the one-story buildings had a moisture barrier. We inspected behind the siding of multi-story buildings #1, #2, #5 and #12, and found that each had only limited moisture barrier, approximately 24 inches above the brick first-story course. During our inspection, we also noted that the flashing appears to be inadequately sized; except in multi-story building locations recently repaired by the Association. Barring complete removal and re-installation of the siding, we do not feel that there is a cost-effective way to completely remedy this deficiency. Therefore, we recommend making repairs to increase the effectiveness of the flashing, and then making repairs on an as-needed basis to prevent water intrusion. We have allocated funds to enhance the flashing on the multi-story buildings in 2009.

Painting of the minimal wood trim components and front doors will be required on a regular basis. We expect that some of the front doors will begin to fade due to sunlight exposure. We recommend painting these components on a 6-year basis. Note that the pool equipment building doors will likely require replacement at least once during the term of this analysis due to corrosive environment in this building. We have allocated funds to replace two doors in this building in Year 12.

Note that we have assumed the HOA is **not** responsible for glass replacement and screens for doors and windows. However, we have assumed that exterior trim maintenance and/or replacement is the responsibility of the HOA. Note that the door and window frames and thresholds should be carefully caulked to the exterior façade for protection against driving rains. We did observe some denting of the garage doors (Building No. 57 – Unit 100) but believe these repairs should be borne by the individual homeowner.

No significant structural cracking or missing mortar was noted in the building brick veneer faces. Some re-pointing of the brick exterior walls and masonry retaining walls structures may be required after the term of this analysis.

We noted some small areas of peeling paint and rust on the metal railings. We recommend that they be cleaned of all rust and repainted on a cycle of approximately seven years beginning in Year 2.

The condition of the exterior light fixtures varied from good to fair. We noted many locations in which the fixtures were hanging away from the wall, and many had lockboxes hanging from them, apparently placed by real estate agents. This activity has likely reduced the service life slightly. We feel that this community should plan to replace the exterior light fixtures on a fifteen year cycle beginning in Year 12.

Awnings have begun to fade and should be replaced by Year 3 and on an 8-year cycle.

**8.0 MECHANICAL SYSTEMS**

**8.1 Electrical Systems**

**Description**

COMMUNITY ELECTRICAL SYSTEMS	
Amperage	Unknown capacity at units
Voltage	120/240 volt
Service Entrance	Underground
Branch Wiring	Not investigated

**Table 8.1: Electrical System Summary**

Underground electrical wires feed exterior, pad-mounted transformers and subsequent meters at each of the units to accomplish electrical distribution in the community. Exterior light fixtures in the townhome units are the

**Evaluation &  
Recommendations**

responsibility of each individual owner. A fountain electrical panel is also provided for the community.

There did not appear to be any issues of significance regarding the electrical system at the community at the time of the investigation. Replacement of the exterior entrance signage lighting is anticipated in approximately Year 15. Additionally, circuit repairs and/or electrical panel replacement for the fountain is anticipated on a 15-year cycle beginning in approximately Year 12. The exterior lighting in the condominium buildings is the responsibility of the Association and is addressed in Exterior Finishes, Section 7.2.

**8.2 Plumbing/Mechanical Systems  
Description**

As there were no drawings available for review, the size of the domestic water distribution piping systems and the wastewater collection piping systems, and their locations, could not be determined. As noted earlier, a fountain is provided at the entrance to the community off of Salem Glen Lane.

The clubhouse incorporates both men's and women's restrooms. The men's room has 2 sinks, 2 toilets and a urinal. The women's room incorporates 3 sinks and 4 toilets.

The clubhouse kitchen is equipped with plumbing for the sink, dishwasher and refrigerator.

The clubhouse is heated and cooled by two split system electric heat pumps rated at 5-Tons of cooling each. These heat pumps were manufactured in 2002.

A laundry room is also included in the clubhouse building. Four dryers and four washing machines are included within the laundry; however, this area is leased to an outside vendor and the equipment is not maintained by the Association.

**Evaluation &  
Recommendations**

There did not appear to be any issues of significance regarding the plumbing systems at the community at the time of the investigation. We have assumed that replacement or major repairs to the pond fountain will be required as noted in Section 8.1., above. Additionally, we have allocated funds to replace the restroom fixtures near the end of the term of this analysis.

The clubhouse HVAC units were operative at the time of inspections. The projected life of this equipment is 15-years and we have allocated funds for replacement in Year 10.

**9.0 MISCELLANEOUS AMENITIES  
Description**

A small structure shelters the metal mailbox center for the community located near the clubhouse. Boxes for the entire community and the clubhouse building are located within this mailcenter.

The clubhouse interior is finished with a combination of ceramic tile and carpeted flooring. The interior walls are covered with either painted or



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Recommendations**

papered drywall. The clubhouse offices and sitting areas are furnished. The sitting area has 11 chairs, 2 tables, bookshelves, 2 desks, end table and couch. The two front offices include 3 desks, 4 chairs, cabinets and office equipment (fax and copy machines are located in a copy room). A rear office is also furnished.

A small kitchen is located within the clubhouse and the kitchen includes cabinetry, countertops, bar stools, microwave and refrigerator.

Two tennis courts enclosed with vinyl covered link fencing is provided near the center of the property. A tot lot and picnic area with one PVC sliding board apparatus, three charcoal grills and two PVC tables are located near the tennis courts. A small putting green with artificial grass is provided near the clubhouse and traffic circle.

A concrete swimming pool with concrete decking surrounded by anodized aluminum fencing is located behind the clubhouse building. Pool filtration equipment and pool chemicals are located in a separate brick pool building. The filtration equipment includes a circulation pump, two Triton sand filters and associated piping. Approximately 40 pool chairs, 6 tables, 1 bench and two grills are located within the pool anodized aluminum fencing.

The car care center building includes a maintenance shop and covered area with water for washing cars.

The clubhouse building and interior finishes appeared to be in good condition. We do not anticipate replacement of the ceramic tile flooring in this building will be required over the next 20 years. Painting of the interior, re-carpeting the fitness room and replacing furniture and office equipment will be required over the term of this analysis. We have allocated funds to repaint on a 7-year cycle beginning in Year 3, re-carpeting the fitness area on a similar cycle (actual cycle based on usage) and replacing furniture, equipment and appliances on a 15-year cycle beginning in Year 10.

We noted several low areas within the tennis court surfacing, but no major structural cracking or upheaval in the courts was observed. The netting on both courts was worn. We have allocated funds to replace netting in 2009 (5-year cycle) and resurfacing and re-stripping the courts in approximately Year 16. Spot repairs to the fencing around the courts will also likely be required on a 8-year basis.

Replacement of the playground equipment is anticipated near the end of the term although the equipment currently appears to be in relatively good condition. Replacement of the grills will likely be required by Year 8.

The swimming pool and associated equipment appeared to be in relatively good condition. No major cracking in the pool surface was observed. We anticipate that minor pool repairs and re-coating will be required in approximately Year 5 and on a 10-year cycle. Replacement and/or rebuild

of the filtration equipment will likely be required near the same time. The life of pool furniture is highly variable depending on usage and storage conditions, and we have assumed replacement of this furniture on a 6-year basis beginning in Year 3. We have also provided funds to replace up to 5% of the concrete decking around the pool every five years beginning in Year 3. Painting of the pool fencing is anticipated by Year 8.

Replacement of the putting green carpet is anticipated in the next 3-5 years and on an 8-year cycle. The mailcenter and mailboxes appear to be in good condition. The small structure at the mail center will require regular maintenance similar to the exterior of the residential buildings and clubhouse. We have assumed that replacement of the mail boxes with a similar type will be required shortly after the term of this analysis.

In summary, we consider these buildings to be in generally fair-to-good condition when compared to others of similar age and construction type. While some components are in need of a repair and replacement program, the program can be prioritized and planned in conjunction with reserve strategies.

We feel that the reserve financials included with this report outline several possible strategies for the community to adopt given the current condition of the project as a whole. As time passes, it may become necessary to re-establish financial priorities and capital expenditure schedules given any unforeseen circumstances. We recommend and encourage this activity.

## **10.0 CONCLUSION**

## 11.0 LIMITATIONS

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 Avera Place Condominium Association. Criterium-Giles 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-Giles 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 soil 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
- Interior of units

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. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

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

Respectfully submitted,

\_\_\_\_\_ (Robert C. Giles, PE)  
President - Criterium-Giles Engineers Inc.

**Appendix A: RESERVE FUND PROJECTIONS**

## INTRODUCTION

The following is a projected reserve fund analysis for non-annual items as discussed in the report. 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 projection is to help the Association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next twenty years.

The capital items listed are those that are typically the responsibility of the Association and are derived from a list provided by the property manager. However, Association by-laws vary and, therefore, which components are the responsibility of the owner and which are the responsibility of the Association can vary. The Association should confirm that the items listed should be financed by the Association reserve fund.

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 deposited reserve funds.
- A table that lists anticipated replacement and/or repair items 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 capital expenditures based on your current funding program and reserve balances, and alternatives to your current program. The provided graphs illustrate what effects the funding methods will have over the presented twenty-year period versus the anticipated capital expenditures. Care should be taken in analyzing the graphs due to varying graphic scales that occur within each graph and between graphs.
- Note that based on our developed list of capital items and taking inflation into account, the current funding is not adequate.
- The Association 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 have included two alternatives to your current funding program that appears to reflect the objectives of the community. Other potential alternatives that include special assessments do not appear to best serve the community at this time.

- **Alternative 1:** Establish an annual capital contribution of \$8970 per month (approximately \$26 per unit per month) in 2009. Then increase the capital contribution as a step function every 2 years. The magnitude of step increase will be \$7 per unit per month. This

alternative will maintain a positive balance for the term of the analysis.

- **Alternative 2:** Establish an annual capital contribution of \$8970 per month (approximately \$26 per unit per month) in 2009. Then increase the capital contribution as a percentage increase every year. The magnitude of percentage increase will be 8% per unit per year. This alternative will maintain a positive balance for the term of the analysis.

Note that third alternative which would include a special assessment is not provided. This type alternative is typically not preferred unless a substantial shortfall of funds coupled with forecasted significant short-term outlays are identified.

Please note that the reserve fund study does not include typical annual maintenance items. Our assumption is that you already have an annual operating budget that provides for these typical, repetitive items. This includes miscellaneous repairs, lawn and grounds maintenance, routine minor painting, etc. We have focused on those significant, non-annual items where careful financial planning is important.

Finally, please note that the estimates we have developed are based on beginning of 2008 dollars. Our reserve fund study does adjust for an estimated annual inflation and a given return on investment assuming that the indicated fund balances are maintained.

**Appendix B: PHOTO LOG**



## **Appendix C: ENGINEER QUALIFICATIONS**