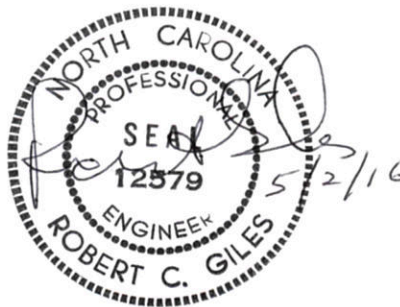


FULL RESERVE STUDY

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1.0 INTRODUCTION

The Avery Close Condominium authorized Criterium–Giles Engineers to conduct a Reserve Study for the Avery Close community 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 (20) 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.

2.0 EXECUTIVE SUMMARY

Avery Close is a community in Raleigh, North Carolina that is comprised of 120 condominium units, a clubhouse building, a pool and the associated equipment and furnishings. Based on Wake County tax records, the community was originally constructed in 1984.

The association has responsibility for the roofs, gutters, and siding on the condominium buildings. The association is also responsible for maintaining the clubhouse building and associated mechanical equipment and furnishings. Site improvements maintained by the association include the private parking areas/streets, retaining walls, concrete flatwork and the drainage systems.

The buildings, common areas and grounds are generally in good condition. Based on our evaluation, the current level of funding does not maintain a positive balance through the term of this study. We have provided recommendations for annual reserve contribution schedules that provide sufficient funding to meet capital expenditure requirements in the next twenty years. A more detailed analysis of the reserve fund has been provided in Appendix A.

Some significant expenditures are expected over the term of the study. Some of the more notable examples are listed below:

- Repair, seal and resurface asphalt paved surfaces
- Replace building roofs and gutters
- Paint and repair siding and trim

There are, of course, other capital expenditures to be expected over the next twenty years. Those items that will require attention are discussed later in this report.

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 Avery Close Condominium 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 Avery Close Condominium, Criterium-Giles Engineers Inc., Wilson Property Management, and the standards of the Community Associations Institute. 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 "Cash Flow Method" of calculating reserves has been utilized, whereby contributions to the reserve fund are designed to offset the variable annual expenditures. Funding alternates are recommended which are designed to achieve a "Baseline Funding" goal by maintaining a positive balance for the term of the study.

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 twenty 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.

Our reserve study analysis included evaluating the following association property:

- **Buildings:** The HOA is responsible for maintenance and replacement of the roofing and gutters, siding (EIFS), trim and for maintaining the clubhouse and pool buildings.

- **Mechanical Systems:** The Association is responsible for the common area plumbing supply and sewer system, pool pump and filtration equipment as well as the plumbing, electrical and HVAC equipment serving the clubhouse.
- **Site and Grounds:** The HOA is responsible for asphalt paving, concrete curbing and flatwork and drainage systems.
- **Amenities:** The HOA is responsible for maintaining the swimming pool and associated equipment and furnishings. The association also maintains the mailbox kiosk onsite.

The above list was obtained from the site inspection and discussions with the management firm prior to the inspection.

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

1. Examining association managed equipment, building 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 2016 dollars) for each capital item.
4. Using data developed in Steps 1, 2 and 3 to project Capital Reserve balances for Years 1 through 20.

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 8.0.

3.3 Sources of Information

Onsite inspections of the property occurred on the following date:

- April 5, 2016

The following people were interviewed during our study:

- Joe Stewart, Community Manager, Wilson Property Management
- Board members at meeting on 4/19/16

The following documents were made available to us and reviewed:

- Wake County real estate records
- Financial statements (income/balance sheet)
- Governing documents

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

- R.S. Means
- Our data files on similar projects
- Local contractor estimates

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.

Avery Close is a community in Raleigh, North Carolina that is comprised of 120 condominium units, a clubhouse building, a pool and the associated equipment and furnishings. Based on Wake County tax records, the community was originally constructed in 1984.

4.0 DESCRIPTION

The association has responsibility for the roofs, gutters, and siding on the condominium buildings. The association is also responsible for maintaining the clubhouse building and associated mechanical equipment and furnishings. Site improvements maintained by the association include the private parking areas/streets, retaining walls, concrete flatwork and the drainage systems.

Eleven condominium buildings house 120 condominium style units. The buildings are generally configured with 2 condo units located above a single ground floor unit. The buildings are generally 3 stories and include wood framed stairs and a porch in front of each unit. The community also includes a single story clubhouse building adjacent to the pool and a small pool building.

The buildings are of wood frame construction with poured concrete slab foundations. Exterior surfaces are primarily comprised of EIFS (exterior insulation finishing system) stucco siding and wood siding with wood trim. The building roofs are clad with asphaltic fiberglass shingles with gutters and downspouts discharge stormwater to grade.

Site drainage is provided via landscaped and concrete swales that drain towards catch basins in the paved and landscaped areas. These systems direct water flow offsite to the municipal storm sewer system.

5.0 OBSERVATIONS

The following key observations were made about the current condition of the more significant and costly common elements of the property.

Site and Grounds

The parking areas and streets throughout the community are asphalt paved and are privately maintained by the Association. The asphalt paving generally appeared to be in good to fair condition and appears to have been resurfaced at some point since original construction. We noted areas of sediment accumulation around curb inlet basins near the entry areas of the parking lot. We also noted longitudinal cracking developing throughout the asphalt paved areas. The areas of sediment accumulation appear to be the result of an inadequate drainage profile preventing stormwater from draining into the inlet basins. These areas will likely require full depth repair to provide an adequate drainage profile. This would include saw cutting and removing sections of paving, repairing base course/sub-grade as needed and installing new 2" to 4" thick asphalt paving. We have allocated funds for full depth repairs of sections of the paving on a 7 year cycle beginning in 2018.

Typically, we recommend the application of an oil resistant sealant to all asphalt paved surfaces on an approximately 5 year cycle. At this same time, all cracks should be properly filled, patched, and sealed. We have allocated funds for crack repair, seal coating and re-striping the pavement beginning in 2018 and on a 7 year cycle.

Assuming repairs, crack filling and seal coating are completed in the interim, we estimate the asphalt paving to have a remaining useful life of approximately 15 years prior to resurfacing. Full resurfacing would include milling sections of existing paving and installing a new 1.5 – 2” layer of asphalt over all of the existing paving. Milling of areas and full depth repairs will likely be required at resurfacing to repair areas of significant cracking/depressions/upheaval and to maintain an adequate drainage profile. We have allocated funds for resurfacing the paving on a 25 year cycle beginning in 2032.

Limited sections of the streets and parking areas are lined with concrete curb and gutter. We noted limited sections of significant cracking and upheaval. As noted above, sediment accumulation was noted in paved areas around curb inlet basins near the front entry. We have allocated funds to repair sections of the concrete curb and gutter on a 10 year cycle beginning in 2017. This would include saw-cut and removal of damaged areas of curbing and installing new concrete curbing.

The association is responsible for maintaining the concrete flatwork consisting of the walkways and sidewalks and steps at the front of each building, along private streets, around dumpster enclosures and the concrete pool deck. We noted areas of moderate cracking and upheaval developing in sections of the concrete flatwork. We have allocated funds for periodic repairs and/or replacement of concrete surfaces as required and have assumed that 2.5% of the surfaces will require maintenance every 5 years beginning in 2017.

Storm water on the site drains via surface flow or via landscaped and concrete lined swales toward catch basins and inlet pipes in the paved and landscaped areas. Inlets in the roadway gutters and the grassed areas collect stormwater that flows to the municipal storm sewer system.

The swales tend to accumulate sediment that settles out during storm events and will need to be periodically removed and re-graded. In addition, over time, small landscape drainage systems will likely need to be installed in flat areas of the community to address concerns. We noted areas of erosion developing around the right side of building 2518 and the left side of building 2512. Soil erosion is beginning to undermine rear concrete patios in sections of the community, specifically observed at the building 2522. We also observed bare soils on embankments which can develop into erosion. We recommend maintaining adequate soil stabilizing ground cover to reduce erosion concerns. We also recommend having a portion of the private drainage infrastructure (buried piping) inspected with a video borescope system, flushed, and repaired as necessary. We have allocated funds to repair the drainage systems on a 5 year cycle beginning in 2017. Repairs will likely include retrenching of swales to improve flow, adding rip rap or vegetation to stabilize exposed or steep areas, repairing erosion concerns, extending gutter downspouts to underground systems, installing french drains or other types of minor drainage systems.

A concrete masonry unit (CMU) retaining wall is located along the parking area sidewalk in front of buildings 2510, 2512 and 2514. We noted minor cracking developing in sections of the retaining wall. We have allocated funds for full replacement of the retaining wall in 2032 in conjunction with asphalt paving resurfacing. Sections of the concrete sidewalk and paving will likely require removal to install appropriate geo-grid reinforcements or other tie-back systems. We strongly recommend closely monitoring the condition of the retaining walls for additional cracking/movement.

Wood fencing is installed around a dumpster area in the community. The wood fencing was observed to be in poor condition and is leaning significantly. We have allocated funds to replace the wood fencing at the dumpster enclosure on a 15 year cycle beginning in 2017.

Chain link fencing is installed around the pool area and appeared to be in fair condition. We have allocated funds to replace the fencing in 2020.

A small mail building with mailbox inserts is centrally located in the community. Moderate corrosion was observed developing on the metal mailbox inserts. We have allocated funds to replace the mailbox inserts on a 25 year cycle beginning in 2017. We have included funds to maintain the mail building in conjunction with other building repairs noted below.

Landscaping on the property includes trees, shrubs and turf located throughout the common areas. Wood landscape timber borders are installed in many of the landscaped areas around the community. We have provided an allocation of funds for landscaping improvements on a 3 year cycle beginning in 2018. This would likely include replacing deteriorated landscape timber borders, significant trimming/removal/replacement of trees and shrubs and other landscape enhancement projects.

A painted wood entrance sign is located along Avent Ferry Road and appeared to be in fair condition. We have allocated funds to replace the sign on a 15 year cycle beginning in 2022.

Limited sections of painted metal railings are installed along steps and walkways in the community. We have assumed minor repairs and spot painting of the metal railings would be funded from an annual maintenance budget.

Common Building Exteriors

The predominant pitched roof surfaces over the buildings are covered in asphaltic fiberglass shingles. Roof surfacing is applied over plywood roof sheathing, and generally appears to be in good condition. The roofs throughout the community appear to have been replaced approximately 10 to 15 years ago. We are unaware of any concerns with current roof leaks. We anticipate minor improvements including replacing vent boots, flashing and drip edge repairs, and gutter repairs will begin to be required in the near term. We have assumed minor repairs would be funded from an annual maintenance budget.

This type of roofing has an expected useful life of approximately 20 years. We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*. A re-roofing sequence should include removal of the existing roofing material, replacement of any inadequate roof sheathing, replacement of any damaged flashing, and replacement of drip edge components. We have allocated funds to replace the roofs on all of the buildings in 2024.

Gutters and downspouts are in generally good condition and should not require replacement until the time of roof replacement, as this component typically provides twenty years of relatively trouble free service. Note that we observed gutters filled with debris and possible fascia damage on the rear face of building 2514. We have assumed this repair and similar periodic repairs and gutter cleaning would be funded from an annual maintenance budget.

The buildings throughout the community are predominately clad in an EIFS (exterior insulation finishing system) stucco cladding. Sections of the building include painted wood siding and trim. The exterior surfaces of the buildings generally appeared to be in good condition and recently repaired and painted. We have allocated funds for painting and repairs of the EIFS, wood siding and trim components on all of the buildings on an 8 year cycle beginning in 2023. The painting/repair cycles should include repairing/replacing damaged sections of siding and trim, repairing deteriorated caulking and flashing, a thorough cleaning and proper surface preparations and the application of 2 coats of a high quality exterior grade paint.

The condominium buildings include wood framed stairs and front porches to access the front entry of the units. The wood framed stairs and porches appeared to be in fair condition and will likely require significant repairs/replacement in the near term. The front porch structures do not include lateral bracing as required in current code and the front porch structures do not appear to be adequately through-bolted to the building as required by current code.

We noted relatively minor immediate repair needs for the front steps including the repair of a central stair stringer in front of unit 2510-204. The center stair stringer at this location does not appear to be adequately fastened to the girder. We strongly recommend periodic inspections and repairs be completed to the front porch/stair structures. We have allocated funds to completely rebuild the front porch and stair structures in 2020. This would include replacing posts, footings, structural framing, decking and railings. We have assumed the front porch roof structures would be able to be temporarily supported during construction and not require replacement.

Note that the doors, windows and rear balconies/patios on the individual units are maintained by individual unit owners.

Building foundations are of slab-on-grade construction. We noted areas of cracking developing in exposed vertical faces of the slab on grade construction in areas of the buildings, typically near rear patios. We recommend maintaining adequate drainage systems around the buildings to reduce moisture infiltration around the foundations. Considering the age of the buildings, it is likely that periodic foundation/structural repairs will be required. These repairs may include foundation stabilization with helical piers, installing/repairing foundation drains and other foundation/structural repairs. We have provided an allocation of funds for structural repairs on a 5 year cycle beginning in 2022

The clubhouse building includes sliding glass doors, personnel doors and windows. The doors and windows at the clubhouse building appeared to be in fair to poor condition and of original construction. Several windows were observed with broken panes that have been repaired. We have allocated funds to replace the doors and windows at the clubhouse on a 30 year cycle beginning in 2017.

Common Clubhouse Interior

The clubhouse building includes an open multipurpose room, a small office area, kitchen, storage room and men's/women's bathrooms. The restrooms include toilets, sinks, partition walls and standard plumbing fixtures. Cabinetry with countertops are located in the kitchen area. Flooring is comprised of carpet and tile. Limited appliances include a refrigerator, range and dishwasher. Limited furnishings are located in the clubhouse.

We have allocated funds to replace the carpet in the clubhouse building on a 10 year cycle beginning in 2019.

The kitchen cabinets, counter tops and appliances appeared to be of original construction. We have allocated funds to refurbish the kitchen cabinets and counter tops on a 25 year cycle beginning in 2019. We have allocated funds to replace the appliances in the kitchen on a 15 year cycle beginning in 2019.

We have allocated funds to refurbish the restroom fixtures at the clubhouse on a 25 year cycle beginning in 2019. This would include replacing partition walls, replacing plumbing fixtures and countertops in the bathrooms.

We have assumed interior painting, furniture replacement and other minor interior repairs would be funded from an annual maintenance budget.

Mechanical

The pool pump and filtration equipment located pool building consists of a 2-horsepower pump with a Triton II sand filter and an auto-chlorinator system. These items are typically replaced as they fail, and we have provided funds to replace components of the pump and filtration system on a 3 year cycle beginning in 2017. Repairs will likely include replacing pump and/or motor, replacing sand in the sand filter and other repairs.

A laundry room with leased equipment is located in the clubhouse building. The water heater serving the clubhouse is a Rheem manufactured 120 gallon electric water heater manufactured in 2010. Water heaters typically have an expected useful life of approximately 15 years. We have provided an allocation of funds to replace the water heater in 2025.

The clubhouse is served by a Trane 1.5 –ton capacity and 4-ton capacity, split-system heat pump units that were manufactured in 1984 and 2003. The interior fan coil units appear to be of original construction (1984). We have provided funds to replace the HVAC system at the clubhouse on a 15-year cycle beginning in 2017 for the older equipment and in 2024 for remaining equipment.

The association is responsible for maintaining the common area buried sanitary sewer system piping. This does not include the laterals extending the main sewer lines, as these components are reportedly the responsibility of individual unit owners. Considering the age of the infrastructure, we recommend the association conduct routine video borescope inspections of the buried piping. This will greatly assist in determining the condition of the piping and developing pro-active repair plans. We have provided an allocation of funds to repair common buried piping on an 8 year cycle beginning in 2023. Repairs may include root treatment and hydrojetting to remove roots and/or full replacement of sections of piping.

The clubhouse plumbing system includes copper supply piping with a back flow preventer. Electrical system components include two 200-amp Square D breaker panels in the clubhouse and a smaller breaker panel in the pool pump room. The plumbing and electrical systems serving the clubhouse appeared to be functioning adequately during the inspection. We have allocated funds for repairs to the plumbing electrical systems at the clubhouse in 2027.

Amenities

Amenities owned and maintained by the Association include the swimming pool and associated equipment and furnishings.

The pool surface appeared to generally be in good condition. Typically, pools should be drained, minor cracks repaired, and recoated (possibly quartz plaster) on an approximately 10-12 year cycle. We have budgeted funds for full resurfacing and tile repairs on a 12-year cycle beginning in 2025.

Pool furniture consisted of limited chaise lounge chairs stored in the pool building that appeared to be of significant age. We have budgeted for replacement of approximately 10 pcs of the furniture every three years, beginning in 2017. The fund allocation would also include replacing the pool ladders and rails.

6.0 RESERVE FUND ANALYSIS

Using software developed by Criterium Engineers and KPMG Peat Marwick, we have analyzed capital reserves draw-down for the projected capital expenditures to determine the amount needed. 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 the Association with several items added as a result of the inspection. However, association by-laws vary, and therefore, which components are the responsibilities of the owner and which are the responsibilities of the Association can vary. The Association should confirm that the items listed should be financed by the 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 of 3% annually and rate of return on deposited reserve funds of 1.5% annually.
- 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.
- Note that based on our developed list of capital items and taking inflation into account; the current funding level 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 alternatives to your current reserve funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. In summary they are as follows:

Current Reserve Funding Rate: \$29,400/year (average of \$20.42 /unit/month)

Current Reserve Balance: \$386,721 (projected 2017 starting balance)

- **Alternative 1:** Increase the annual contribution in 2017 to \$42,000 per year (average of \$29.17 per unit per month). Then, increase the reserve contribution every other year for the next 8 years. The amount of the increase should be \$12,600 per year (average of \$8.75 per unit per month). This alternative is projected to maintain a positive balance through the term of this study.
- **Alternative 2:** Increase the annual contribution in 2017 to \$60,000 per year (average of \$41.67 per unit per month). Then, increase the reserve contribution every year for the next 10 years by 4%. This alternative is projected to maintain a positive balance through the term of this study.
- **Alternative 3** Maintain the current reserve contribution rate for the next 20 years. Two special assessments are projected to be required, each in the amount of \$360,000 (\$3,000 per unit). The first is projected for 2024 and the second for 2031. **Note that we do not endorse this alternative as special assessments are not a preferred method of funding reserves.**

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 2016 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.

7.0 CONCLUSION

The alternatives provided above should provide sufficient funding to meet estimated capital expenditures during the next twenty years. Further detail of the reserve fund analysis is provided in Appendix A.

8.0 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 the Avery Close Condominium. Criterium-Giles Engineers Inc. 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 Inc. 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
- Unit interiors

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.

Members of the Criterium-Giles Engineers team working on this reserve study are not members of, or otherwise associated with the association. Criterium-Giles Engineers has disclosed any other involvement with the association that could result in conflicts of interest.

Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues, will be deemed reliable by Criterium-Giles Engineers. The reserve balance presented in the Reserve Study is based upon information provided and was not audited. Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection. Criterium-Giles Engineers is not aware of any additional material issues which, if not disclosed, would cause a distortion of the association's situation.

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,



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Appendix A: RESERVE FUND PROJECTIONS

Itemized Worksheet

Capital Item To Be Replaced	Quantity	Unit cost	Reserve Requirement (*)	Frequency (yrs**)	Remaining Life (yrs)	Information Source
Site						
Crack fill, seal coat, restripe paving	7,500 SY	\$2.00	\$15,000.00	7	1	
Full depth repairs of sections of paving	100 SY	\$35.00	\$3,500.00	7	1	
Resurface asphalt paving	7,500 SY	\$12.00	\$90,000.00	25	15	
Repair sections of concrete curb and gutter	100 LF	\$40.00	\$4,000.00	10	0	
Repair sections of concrete flatwork	70 SY	\$95.00	\$6,650.00	5	0	Approx. 2.5% every 5 Years
Drainage improvements	1 LS	\$12,500.00	\$12,500.00	5	0	
Repair/replace retaining wall	1,150 SF	\$50.00	\$57,500.00	20	15	
Replace wood fencing at dumpster enclosure	100 LF	\$30.00	\$3,000.00	15	0	
Replace mailbox inserts	1 LS	\$7,000.00	\$7,000.00	25	0	
Allocation for landscape improvement projects	1 LS	\$20,000.00	\$20,000.00	3	1	
Replace fencing around pool area	130 LF	\$30.00	\$3,900.00	25	3	
Replace entrance sign	1 LS	\$3,500.00	\$3,500.00	15	5	
Building Exterior						
Replace building roofs	810 SQ	\$265.00	\$214,650.00	20	7	
Paint/repair exterior of buildings	122 EA	\$1,200.00	\$146,400.00	8	6	
Replace wood decks at front entries	40 EA	\$3,600.00	\$144,000.00	30	3	
Allocation for structural repairs	1 LS	\$15,000.00	\$15,000.00	5	5	
Replace doors at clubhouse/pool buildings	11 EA	\$1,200.00	\$13,200.00	30	0	
Replace windows at clubhouse building	7 EA	\$450.00	\$3,150.00	30	0	
Building Interior						
Replace carpet in clubhouse	1,400 SF	\$4.00	\$5,600.00	10	2	
Refurbish kitchen cabinets/countertops	1 LS	\$8,000.00	\$8,000.00	25	2	
Replace kitchen appliances	1 LS	\$3,000.00	\$3,000.00	15	2	
Refurbish bathroom fixtures	2 EA	\$7,500.00	\$15,000.00	25	2	
Mechanical						
Replace clubhouse HVAC equipment	6 Tons	\$2,000.00	\$11,000.00	15	7	
Replace clubhouse water heater	1 EA	\$2,500.00	\$2,500.00	15	8	
Allocation for plumbing electrical repairs at CH	1 LS	\$4,500.00	\$4,500.00	40	10	
Allocation for buried sewer piping repairs	1 LS	\$25,000.00	\$25,000.00	8	5	
Amenities						
Repair/resurface swimming pool	1,000 SF	\$14.00	\$14,000.00	12	8	
Repair pool pump and filtration equipment	1 LS	\$2,500.00	\$2,500.00	3	0	
Replace pool furniture	10 EA	\$150.00	\$1,500.00	3	0	
Other						
			Totals			\$855,550.00
			Total Over Term			\$1,311,000.00

* Costs are typically 10%±

** Reserve study is based on a 20 year projection of non-annual maintenance

Annual Expense By Year

	Year:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Site																	
Crack fill, seal coat, restripe paving		0	15,000	0	0	0	0	0	0	15,000	0	0	0	0	0	0	0
Full depth repairs of sections of paving		0	3,500	0	0	0	0	0	0	3,500	0	0	0	0	0	0	0
Resurface asphalt paving		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90,000
Repair sections of concrete curb and gutter		4,000	0	0	0	0	0	0	0	0	0	4,000	0	0	0	0	0
Repair sections of concrete flatwork		6,650	0	0	0	0	6,650	0	0	0	0	6,650	0	0	0	0	6,650
Drainage improvements		12,500	0	0	0	0	12,500	0	0	0	0	12,500	0	0	0	0	12,500
Repair/replace retaining wall		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57,500
Replace wood fencing at dumpster enclosure		3,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000
Replace mailbox inserts		7,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allocation for landscape improvement projects		0	20,000	0	0	20,000	0	0	20,000	0	0	20,000	0	0	20,000	0	0
Replace fencing around pool area		0	0	0	3,900	0	0	0	0	0	0	0	0	0	0	0	0
Replace entrance sign		0	0	0	0	0	3,500	0	0	0	0	0	0	0	0	0	0
Building Exterior																	
Replace building roofs		0	0	0	0	0	0	0	214,650	0	0	0	0	0	0	0	0
Paint/repair exterior of buildings		0	0	0	0	0	0	146,400	0	0	0	0	0	0	0	146,400	0
Replace wood decks at front entries		0	0	0	144,000	0	0	0	0	0	0	0	0	0	0	0	0
Allocation for structural repairs		0	0	0	0	0	15,000	0	0	0	0	15,000	0	0	0	0	15,000
Replace doors at clubhouse/pool buildings		13,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replace windows at clubhouse building		3,150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Building Interior																	
Replace carpet in clubhouse		0	0	5,600	0	0	0	0	0	0	0	0	0	5,600	0	0	0
Refurbish kitchen cabinets/countertops		0	0	8,000	0	0	0	0	0	0	0	0	0	0	0	0	0
Replace kitchen appliances		0	0	3,000	0	0	0	0	0	0	0	0	0	0	0	0	0
Refurbish bathroom fixtures		0	0	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0
Mechanical																	
Replace clubhouse HVAC equipment		5,500	0	0	0	0	0	0	5,500	0	0	0	0	0	0	0	5,500
Replace clubhouse water heater		0	0	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0
Allocation for plumbing electrical repairs at CH		0	0	0	0	0	0	0	0	0	0	4,500	0	0	0	0	0
Allocation for buried sewer piping repairs		0	0	0	0	0	25,000	0	0	0	0	0	0	0	25,000	0	0
Amenities																	
Repair/resurface swimming pool		0	0	0	0	0	0	0	0	14,000	0	0	0	0	0	0	0
Repair pool pump and filtration equipment		2,500	0	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500
Replace pool furniture		1,500	0	0	1,500	0	0	1,500	0	0	1,500	0	0	1,500	0	0	1,500
Other																	
Total Costs		59,000	38,500	31,600	151,900	20,000	62,650	150,400	240,150	35,000	4,000	62,650	0	9,600	45,000	146,400	194,150
Total Costs Adjusted For 3% Inflation		59,000	39,655	33,524	165,985	22,510	72,629	179,585	295,354	44,337	5,219	84,196	0	13,687	66,084	221,443	302,479

Annual Expense By Year

	Year: Year Number:	2033 17	2034 18	2035 19	2036 20
Site					
Crack fill, seal coat, restripe paving		0	0	0	0
Full depth repairs of sections of paving		0	0	0	0
Resurface asphalt paving		0	0	0	0
Repair sections of concrete curb and gutter		0	0	0	0
Repair sections of concrete flatwork		0	0	0	0
Drainage improvements		0	0	0	0
Repair/replace retaining wall		0	0	0	0
Replace wood fencing at dumpster enclosure		0	0	0	0
Replace mailbox inserts		0	0	0	0
Allocation for landscape improvement projects		20,000	0	0	20,000
Replace fencing around pool area		0	0	0	0
Replace entrance sign		0	0	0	0
Building Exterior					
Replace building roofs		0	0	0	0
Paint/repair exterior of buildings		0	0	0	0
Replace wood decks at front entries		0	0	0	0
Allocation for structural repairs		0	0	0	0
Replace doors at clubhouse/pool buildings		0	0	0	0
Replace windows at clubhouse building		0	0	0	0
Building Interior					
Replace carpet in clubhouse		0	0	0	0
Refurbish kitchen cabinets/countertops		0	0	0	0
Replace kitchen appliances		0	3,000	0	0
Refurbish bathroom fixtures		0	0	0	0
Mechanical					
Replace clubhouse HVAC equipment		0	0	0	0
Replace clubhouse water heater		0	0	0	0
Allocation for plumbing electrical repairs at CH		0	0	0	0
Allocation for buried sewer piping repairs		0	0	0	0
Amenities					
Repair/resurface swimming pool		0	0	0	0
Repair pool pump and filtration equipment		0	0	2,500	0
Replace pool furniture		0	0	1,500	0
Other					
Total Costs		20,000	3,000	4,000	20,000
Total Costs Adjusted For 3% Inflation		32,094	4,959	6,810	35,070

Reserve Study Worksheet



General Information:

1 Organization: **Avery Close Condominium**
 2 Address: **Raleigh, NC**

3	Number of Units	120
4	Age of Building (in years)	32
5a	Study Period (in years)	20
5b	Normal Fiscal Year starts:	January 1, 2017
5c	Partial Fiscal Year starts:	January 1, 2017
5d	Partial Year Length:	12 months
6	Site Inspection Date	April 5, 2016
7	Reserve Funds at start	\$386,721
8	Rate of Return on invested Reserve Funds (%)	1.5%
9	Inflation Rate (%)	3.0%

10 Current Funding Levels

Existing Funding Levels					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Reserve Fund Contribution		\$2,450	\$29,400	\$20.42	\$245.00
	Years Out		Total Annual	Per Unit	
Planned Special Assessment	0		\$0	\$0	
Balance Computed	(\$683,576)				

11 Alternative Reserve Fund Contribution

Alternative 1 Level Funding with Steps					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$3,500	\$42,000	\$29.17	\$350.00
Monthly Amount, (Last Year)		\$7,700	\$92,400	\$64.17	\$770.00
Balance Required Final Year		\$84,231			
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	0		\$0	\$0	
Second Assessment	0		\$0	\$0	
Balance Computed	\$378,183				

Alternative 2 Escalating Funding at 4% per Year					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$5,000	\$60,000	\$41.67	\$500.00
Monthly Amount, (Last Year)		\$7,401	\$88,815	\$61.68	\$740.12
Balance Required Final Year		\$84,231			
Base Escalation %	4.00%				
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	0		\$0	\$0	
Second Assessment	0		\$0	\$0	
Balance Computed	\$405,309				

Alternative 3 Escalating Funding with Special Assessments					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$2,450	\$29,400	\$20.42	\$245.00
Monthly Amount, (Last Year)		\$2,450	\$29,400	\$20.42	\$245.00
Balance Required Final Year		\$84,231			
Base Escalation %	0.00%				
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	8	Jan 2024	\$360,000	\$3,000	
Second Assessment	15	Jan 2031	\$360,000	\$3,000	
Balance Computed	\$52,619				

Reserve Fund Worksheet

Fiscal Years:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Normal: Jan 2017	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Partial: Jan 2017 (12 months)															

Existing Funding Levels

Beginning Reserve Fund Balance:	\$386,721	\$362,478	\$357,506	\$358,682	\$225,428	\$235,803	\$195,463	\$45,957	(\$219,997)	(\$234,934)	(\$210,754)	(\$265,550)	(\$236,150)	(\$220,437)	(\$257,121)
Revenue:	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400
Special Assessments:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$5,357	\$5,283	\$5,301	\$3,331	\$3,485	\$2,889	\$679	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$59,000	\$39,655	\$33,524	\$165,985	\$22,510	\$72,629	\$179,585	\$295,354	\$44,337	\$5,219	\$84,196	\$0	\$13,687	\$66,084	\$221,443
Ending Reserve Balance:	\$362,478	\$357,506	\$358,682	\$225,428	\$235,803	\$195,463	\$45,957	(\$219,997)	(\$234,934)	(\$210,754)	(\$265,550)	(\$236,150)	(\$220,437)	(\$257,121)	(\$449,164)

Alternative 1, Level Funding with Steps

Average Cap. Expenditure \$84,231

Beginning Reserve Fund Balance:	\$386,721	\$375,267	\$383,276	\$410,417	\$303,517	\$353,430	\$353,221	\$257,237	\$42,308	\$91,727	\$181,591	\$192,642	\$289,318	\$373,551	\$405,865
Revenue:	\$42,000	\$42,000	\$54,600	\$54,600	\$67,200	\$67,200	\$79,800	\$79,800	\$92,400	\$92,400	\$92,400	\$92,400	\$92,400	\$92,400	\$92,400
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$5,546	\$5,664	\$6,065	\$4,485	\$5,223	\$5,220	\$3,802	\$625	\$1,356	\$2,684	\$2,847	\$4,276	\$5,520	\$5,998	\$4,152
Capital Expenditures:	\$59,000	\$39,655	\$33,524	\$165,985	\$22,510	\$72,629	\$179,585	\$295,354	\$44,337	\$5,219	\$84,196	\$0	\$13,687	\$66,084	\$221,443
Ending Reserve Balance:	\$375,267	\$383,276	\$410,417	\$303,517	\$353,430	\$353,221	\$257,237	\$42,308	\$91,727	\$181,591	\$192,642	\$289,318	\$373,551	\$405,865	\$280,974

Alternative 2, Escalating Funding at 4% per Year

Beginning Reserve Fund Balance:	\$386,721	\$393,537	\$422,526	\$460,706	\$367,646	\$421,557	\$428,256	\$329,459	\$114,756	\$154,822	\$238,526	\$246,792	\$340,641	\$422,004	\$451,406
Revenue:	\$60,000	\$62,400	\$64,896	\$67,492	\$70,192	\$72,999	\$75,919	\$78,956	\$82,114	\$85,399	\$88,815	\$88,815	\$88,815	\$88,815	\$88,815
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$5,816	\$6,244	\$6,808	\$5,433	\$6,230	\$6,329	\$4,869	\$1,696	\$2,288	\$3,525	\$3,647	\$5,034	\$6,237	\$6,671	\$4,782
Capital Expenditures:	\$59,000	\$39,655	\$33,524	\$165,985	\$22,510	\$72,629	\$179,585	\$295,354	\$44,337	\$5,219	\$84,196	\$0	\$13,687	\$66,084	\$221,443
Ending Reserve Balance:	\$393,537	\$422,526	\$460,706	\$367,646	\$421,557	\$428,256	\$329,459	\$114,756	\$154,822	\$238,526	\$246,792	\$340,641	\$422,004	\$451,406	\$323,559

Alternative 3, Escalating Funding with Special Assessments

Beginning Reserve Fund Balance:	\$386,721	\$362,478	\$357,506	\$358,682	\$225,428	\$235,803	\$195,463	\$45,957	\$142,103	\$129,073	\$155,553	\$102,268	\$133,643	\$151,596	\$116,636
Revenue:	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$360,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$360,000
Investment Earnings:	\$5,357	\$5,283	\$5,301	\$3,331	\$3,485	\$2,889	\$679	\$2,100	\$1,907	\$2,299	\$1,511	\$1,975	\$2,240	\$1,724	\$0
Capital Expenditures:	\$59,000	\$39,655	\$33,524	\$165,985	\$22,510	\$72,629	\$179,585	\$295,354	\$44,337	\$5,219	\$84,196	\$0	\$13,687	\$66,084	\$221,443
Ending Reserve Balance:	\$362,478	\$357,506	\$358,682	\$225,428	\$235,803	\$195,463	\$45,957	\$142,103	\$129,073	\$155,553	\$102,268	\$133,643	\$151,596	\$116,636	\$284,592

Reserve Fund Worksheet

Fiscal Years:					
Normal: Jan 2017	2032	2033	2034	2035	2036
Partial: Jan 2017 (12 months)	16	17	18	19	20

Existing Funding Levels

Beginning Reserve Fund Balance:	(\$449,164)	(\$722,244)	(\$724,938)	(\$700,496)	(\$677,906)
Revenue:	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400
Special Assessments:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$302,479	\$32,094	\$4,959	\$6,810	\$35,070
Ending Reserve Balance:	(\$722,244)	(\$724,938)	(\$700,496)	(\$677,906)	(\$683,576)

Alternative 1, Level Funding wi

Beginning Reserve Fund Balance:	\$280,974	\$71,958	\$134,248	\$225,015	\$315,264
Revenue:	\$92,400	\$92,400	\$92,400	\$92,400	\$92,400
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$1,063	\$1,984	\$3,325	\$4,659	\$5,589
Capital Expenditures:	\$302,479	\$32,094	\$4,959	\$6,810	\$35,070
Ending Reserve Balance:	\$71,958	\$134,248	\$225,015	\$315,264	\$378,183

Alternative 2, Escalating Fundi

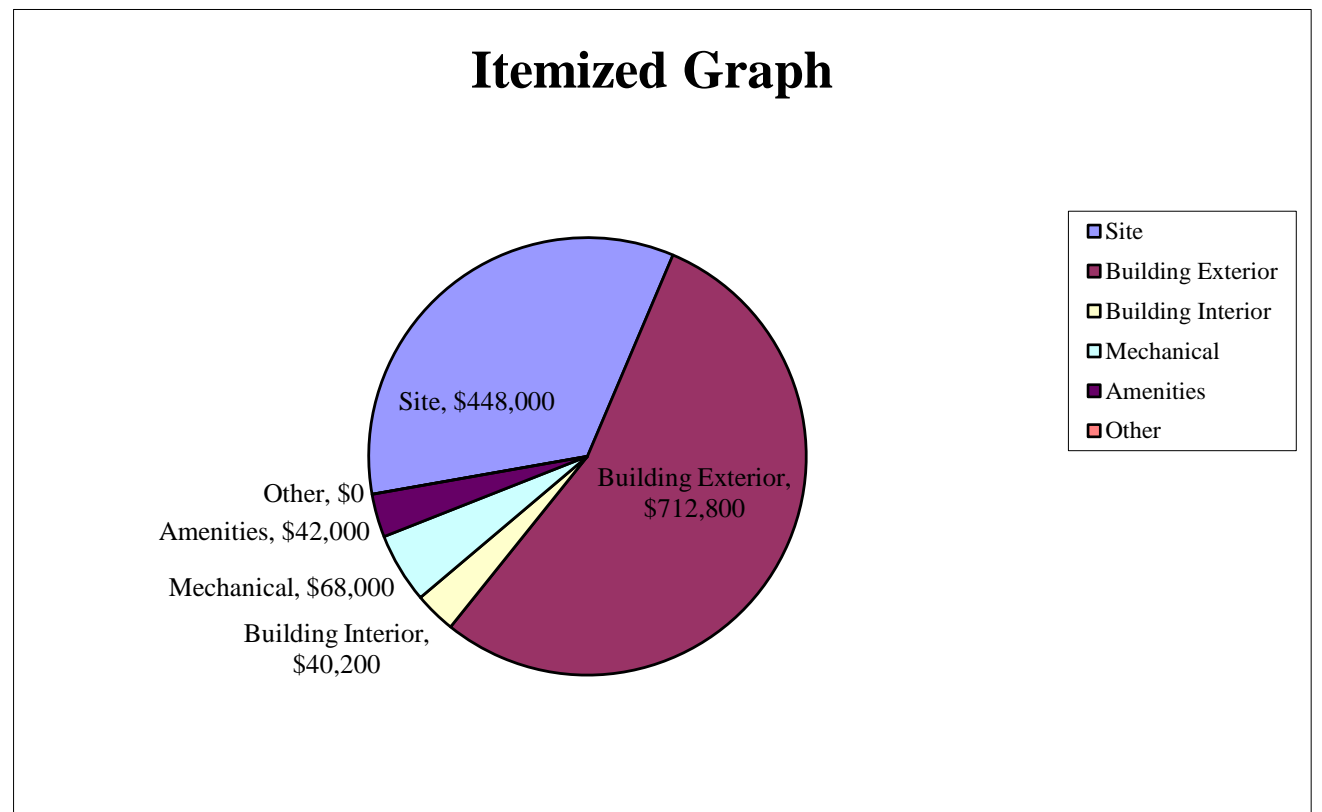
Beginning Reserve Fund Balance:	\$323,559	\$111,543	\$170,787	\$258,463	\$345,575
Revenue:	\$88,815	\$88,815	\$88,815	\$88,815	\$88,815
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$1,648	\$2,524	\$3,820	\$5,107	\$5,990
Capital Expenditures:	\$302,479	\$32,094	\$4,959	\$6,810	\$35,070
Ending Reserve Balance:	\$111,543	\$170,787	\$258,463	\$345,575	\$405,309

Alternative 3, Escalating Fundi

Beginning Reserve Fund Balance:	\$284,592	\$11,686	\$9,126	\$34,071	\$57,512
Revenue:	\$29,400	\$29,400	\$29,400	\$29,400	\$29,400
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$173	\$135	\$504	\$850	\$778
Capital Expenditures:	\$302,479	\$32,094	\$4,959	\$6,810	\$35,070
Ending Reserve Balance:	\$11,686	\$9,126	\$34,071	\$57,512	\$52,619

Itemized Graph

Categories	Totals
Site	\$448,000
Building Exterior	\$712,800
Building Interior	\$40,200
Mechanical	\$68,000
Amenities	\$42,000
Other	\$0
Total	\$1,311,000



Itemized Funding



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Categories	Reserve Requirement	Beginning Balance	Balance Requiring Funding	Monthly Reserve Funding Required	Annual Reserve Funding Required	Full Funding Balance	Percent Funded
Site	\$448,000	\$92,146	\$355,854	\$1,981	\$23,767	\$118,481	
Building Exterior	\$712,800	\$250,485	\$462,315	\$4,352	\$52,221	\$322,073	
Building Interior	\$40,200	\$21,963	\$18,237	\$402	\$4,818	\$28,240	
Mechanical	\$68,000	\$15,386	\$52,614	\$404	\$4,848	\$19,783	
Amenities	\$42,000	\$6,740	\$35,260	\$108	\$1,296	\$8,667	
Other	\$0	\$0	\$0	\$0	\$0	\$0	
Totals	\$1,311,000	\$386,721	\$924,279	\$7,246	\$86,950	\$497,243	77.8%

Existing Funding Levels



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments	Investment Earnings	Capital Expenditures	Ending Balance
2017	1	\$386,721	\$29,400	\$0	\$5,357	\$59,000	\$362,478
2018	2	\$362,478	\$29,400	\$0	\$5,283	\$39,655	\$357,506
2019	3	\$357,506	\$29,400	\$0	\$5,301	\$33,524	\$358,682
2020	4	\$358,682	\$29,400	\$0	\$3,331	\$165,985	\$225,428
2021	5	\$225,428	\$29,400	\$0	\$3,485	\$22,510	\$235,803
2022	6	\$235,803	\$29,400	\$0	\$2,889	\$72,629	\$195,463
2023	7	\$195,463	\$29,400	\$0	\$679	\$179,585	\$45,957
2024	8	\$45,957	\$29,400	\$0	\$0	\$295,354	(\$219,997)
2025	9	(\$219,997)	\$29,400	\$0	\$0	\$44,337	(\$234,934)
2026	10	(\$234,934)	\$29,400	\$0	\$0	\$5,219	(\$210,754)
2027	11	(\$210,754)	\$29,400	\$0	\$0	\$84,196	(\$265,550)
2028	12	(\$265,550)	\$29,400	\$0	\$0	\$0	(\$236,150)
2029	13	(\$236,150)	\$29,400	\$0	\$0	\$13,687	(\$220,437)
2030	14	(\$220,437)	\$29,400	\$0	\$0	\$66,084	(\$257,121)
2031	15	(\$257,121)	\$29,400	\$0	\$0	\$221,443	(\$449,164)
2032	16	(\$449,164)	\$29,400	\$0	\$0	\$302,479	(\$722,244)
2033	17	(\$722,244)	\$29,400	\$0	\$0	\$32,094	(\$724,938)
2034	18	(\$724,938)	\$29,400	\$0	\$0	\$4,959	(\$700,496)
2035	19	(\$700,496)	\$29,400	\$0	\$0	\$6,810	(\$677,906)
2036	20	(\$677,906)	\$29,400	\$0	\$0	\$35,070	(\$683,576)

Existing Funding Levels

Beginning Balance as of start of year beginning Jan 2017: \$386,721

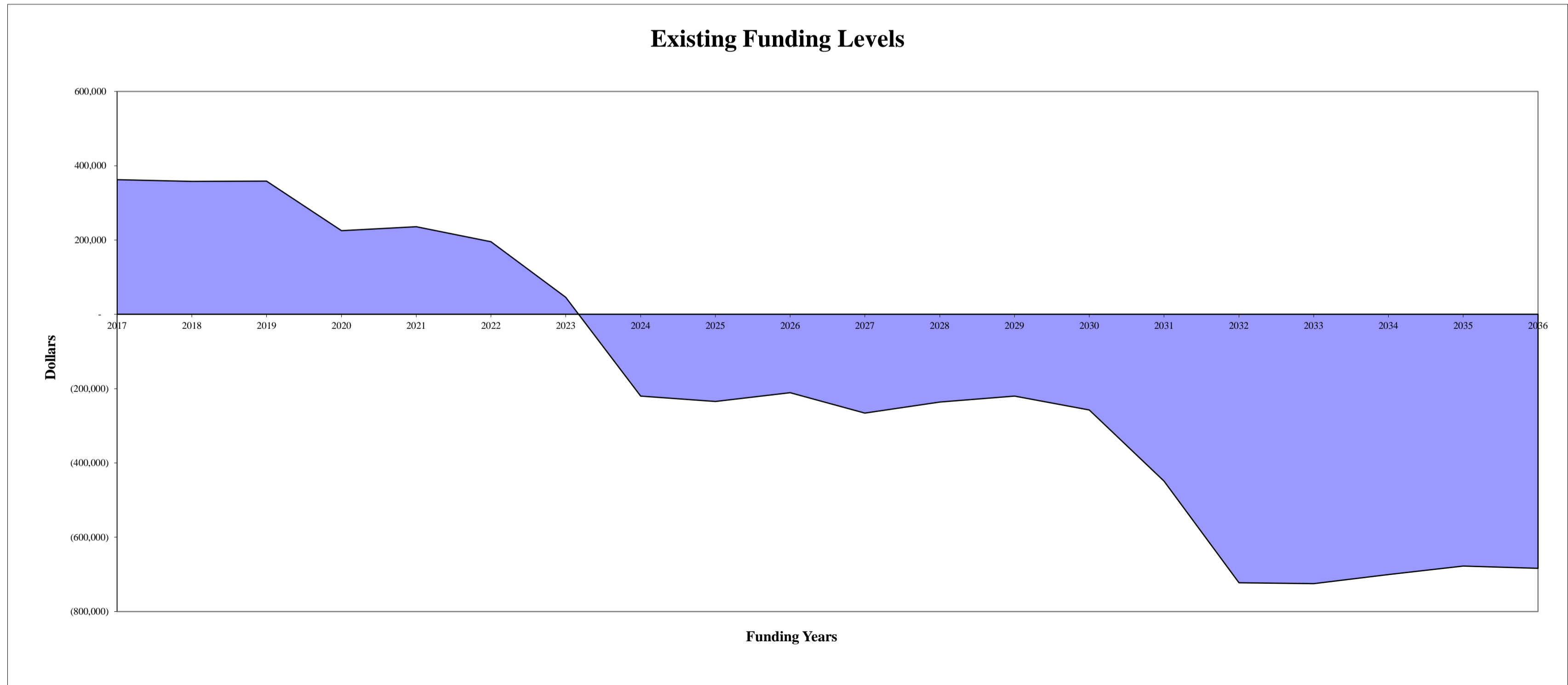
CONTRIBUTIONS	
AMOUNT	
\$29,400.00	per year
\$245.00	per unit per year
\$2,450.00	per month
\$20.42	per unit per month

SPECIAL ASSESSMENTS			
Totals			
Per Year	\$0	Per Unit	\$0

Projected Annual Funding and Expenditures:

Year:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	362,478	357,506	358,682	225,428	235,803	195,463	45,957	(219,997)	(234,934)	(210,754)	(265,550)	(236,150)	(220,437)	(257,121)	(449,164)
Capital Expenditures:	59,000	39,655	33,524	165,985	22,510	72,629	179,585	295,354	44,337	5,219	84,196	-	13,687	66,084	221,443
Total Revenue (all sources)	34,757	34,683	34,701	32,731	32,885	32,289	30,079	29,400	29,400	29,400	29,400	29,400	29,400	29,400	29,400

Year:	2032	2033	2034	2035	2036
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	(722,244)	(724,938)	(700,496)	(677,906)	(683,576)
Capital Expenditures:	302,479	32,094	4,959	6,810	35,070
Total Revenue (all sources)	29,400	29,400	29,400	29,400	29,400



Alternative 1: Level Funding with Steps

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2017	1	\$386,721	\$42,000	\$0	\$0	\$5,546	\$59,000	\$375,267
2018	2	\$375,267	\$42,000	\$0	\$0	\$5,664	\$39,655	\$383,276
2019	3	\$383,276	\$54,600	\$0	\$0	\$6,065	\$33,524	\$410,417
2020	4	\$410,417	\$54,600	\$0	\$0	\$4,485	\$165,985	\$303,517
2021	5	\$303,517	\$67,200	\$0	\$0	\$5,223	\$22,510	\$353,430
2022	6	\$353,430	\$67,200	\$0	\$0	\$5,220	\$72,629	\$353,221
2023	7	\$353,221	\$79,800	\$0	\$0	\$3,802	\$179,585	\$257,237
2024	8	\$257,237	\$79,800	\$0	\$0	\$625	\$295,354	\$42,308
2025	9	\$42,308	\$92,400	\$0	\$0	\$1,356	\$44,337	\$91,727
2026	10	\$91,727	\$92,400	\$0	\$0	\$2,684	\$5,219	\$181,591
2027	11	\$181,591	\$92,400	\$0	\$0	\$2,847	\$84,196	\$192,642
2028	12	\$192,642	\$92,400	\$0	\$0	\$4,276	\$0	\$289,318
2029	13	\$289,318	\$92,400	\$0	\$0	\$5,520	\$13,687	\$373,551
2030	14	\$373,551	\$92,400	\$0	\$0	\$5,998	\$66,084	\$405,865
2031	15	\$405,865	\$92,400	\$0	\$0	\$4,152	\$221,443	\$280,974
2032	16	\$280,974	\$92,400	\$0	\$0	\$1,063	\$302,479	\$71,958
2033	17	\$71,958	\$92,400	\$0	\$0	\$1,984	\$32,094	\$134,248
2034	18	\$134,248	\$92,400	\$0	\$0	\$3,325	\$4,959	\$225,015
2035	19	\$225,015	\$92,400	\$0	\$0	\$4,659	\$6,810	\$315,264
2036	20	\$315,264	\$92,400	\$0	\$0	\$5,589	\$35,070	\$378,183

Alternative 1: Level Funding with Steps

Beginning Balance as of start of year beginning Jan 2017: \$386,721

CONTRIBUTIONS	
FIRST YR	LAST YR
\$42,000.00	\$92,400.00 per year
\$350.00	\$770.00 per unit per year
\$3,500.00	\$7,700.00 per month
\$29.17	\$64.17 per unit per month

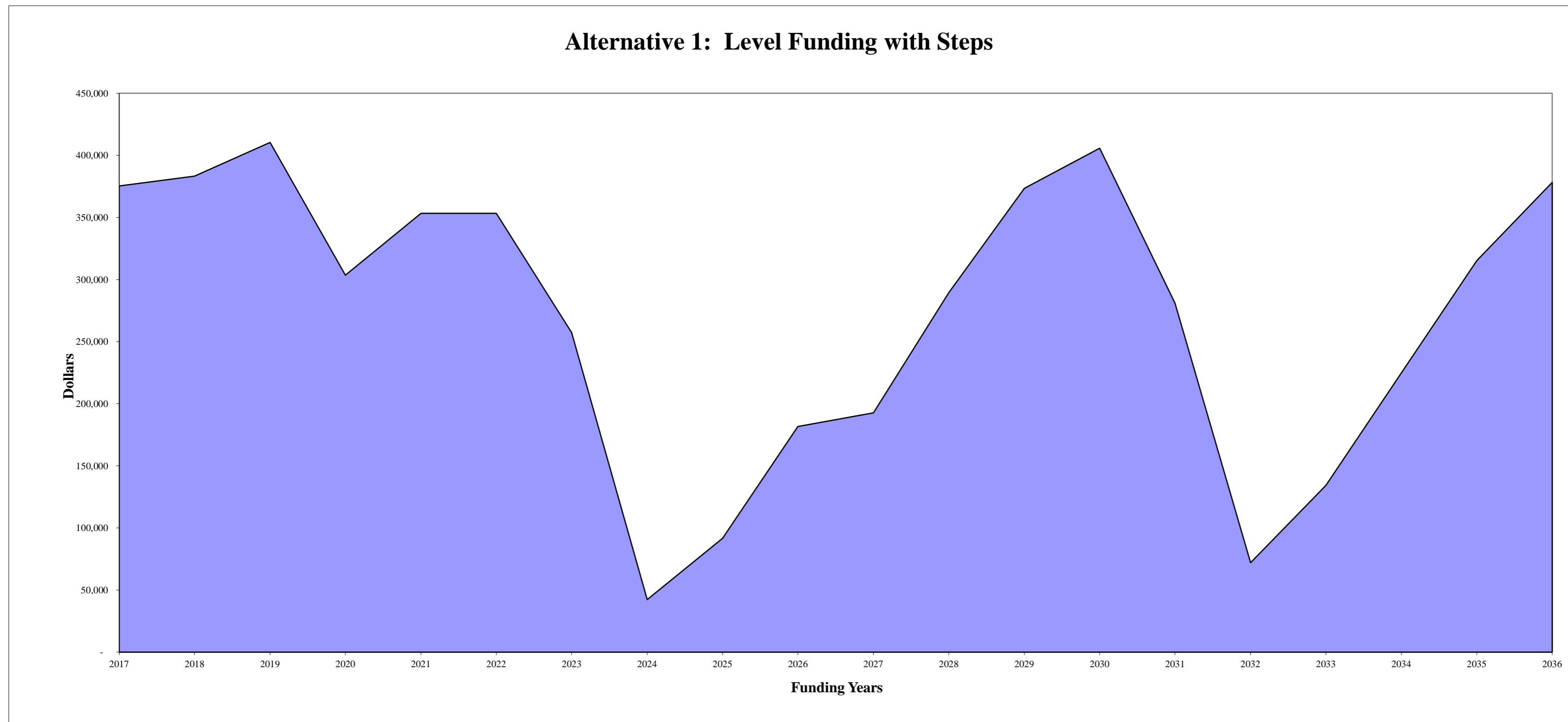
SPECIAL ASSESSMENTS				
First Second	Per Year Per Year	Totals		
		\$0	Per Unit	\$0
		\$0	Per Unit	\$0

SETTINGS (analyzed by year)			
Starting amount (\$):	3500		
Increment by (\$):	1050		
Every	2	year	
Frequency:	4	time	

Projected Annual Funding and Expenditures:

Year:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	375,267	383,276	410,417	303,517	353,430	353,221	257,237	42,308	91,727	181,591	192,642	289,318	373,551	405,865	280,974
Capital Expenditures:	59,000	39,655	33,524	165,985	22,510	72,629	179,585	295,354	44,337	5,219	84,196	-	13,687	66,084	221,443
Total Revenue (all sources)	47,546	47,664	60,665	59,085	72,423	72,420	83,602	80,425	93,756	95,084	95,247	96,676	97,920	98,398	96,552

Year:	2032	2033	2034	2035	2036
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	71,958	134,248	225,015	315,264	378,183
Capital Expenditures:	302,479	32,094	4,959	6,810	35,070
Total Revenue (all sources)	93,463	94,384	95,725	97,059	97,989



Alternative 2: Escalating Funding at 4% per Year



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2017	1	\$386,721	\$60,000	\$0	\$0	\$5,816	\$59,000	\$393,537
2018	2	\$393,537	\$62,400	\$0	\$0	\$6,244	\$39,655	\$422,526
2019	3	\$422,526	\$64,896	\$0	\$0	\$6,808	\$33,524	\$460,706
2020	4	\$460,706	\$67,492	\$0	\$0	\$5,433	\$165,985	\$367,646
2021	5	\$367,646	\$70,192	\$0	\$0	\$6,230	\$22,510	\$421,557
2022	6	\$421,557	\$72,999	\$0	\$0	\$6,329	\$72,629	\$428,256
2023	7	\$428,256	\$75,919	\$0	\$0	\$4,869	\$179,585	\$329,459
2024	8	\$329,459	\$78,956	\$0	\$0	\$1,696	\$295,354	\$114,756
2025	9	\$114,756	\$82,114	\$0	\$0	\$2,288	\$44,337	\$154,822
2026	10	\$154,822	\$85,399	\$0	\$0	\$3,525	\$5,219	\$238,526
2027	11	\$238,526	\$88,815	\$0	\$0	\$3,647	\$84,196	\$246,792
2028	12	\$246,792	\$88,815	\$0	\$0	\$5,034	\$0	\$340,641
2029	13	\$340,641	\$88,815	\$0	\$0	\$6,237	\$13,687	\$422,004
2030	14	\$422,004	\$88,815	\$0	\$0	\$6,671	\$66,084	\$451,406
2031	15	\$451,406	\$88,815	\$0	\$0	\$4,782	\$221,443	\$323,559
2032	16	\$323,559	\$88,815	\$0	\$0	\$1,648	\$302,479	\$111,543
2033	17	\$111,543	\$88,815	\$0	\$0	\$2,524	\$32,094	\$170,787
2034	18	\$170,787	\$88,815	\$0	\$0	\$3,820	\$4,959	\$258,463
2035	19	\$258,463	\$88,815	\$0	\$0	\$5,107	\$6,810	\$345,575
2036	20	\$345,575	\$88,815	\$0	\$0	\$5,990	\$35,070	\$405,309

Alternative 2: Escalating Funding at 4% per Year

Beginning Balance as of start of year beginning Jan 2017: \$386,721

CONTRIBUTIONS		
FIRST YR	LAST YR	
\$60,000.00	\$88,814.66	per year
\$500.00	\$740.12	per unit per year
\$5,000.00	\$7,401.22	per month
\$41.67	\$61.68	per unit per month

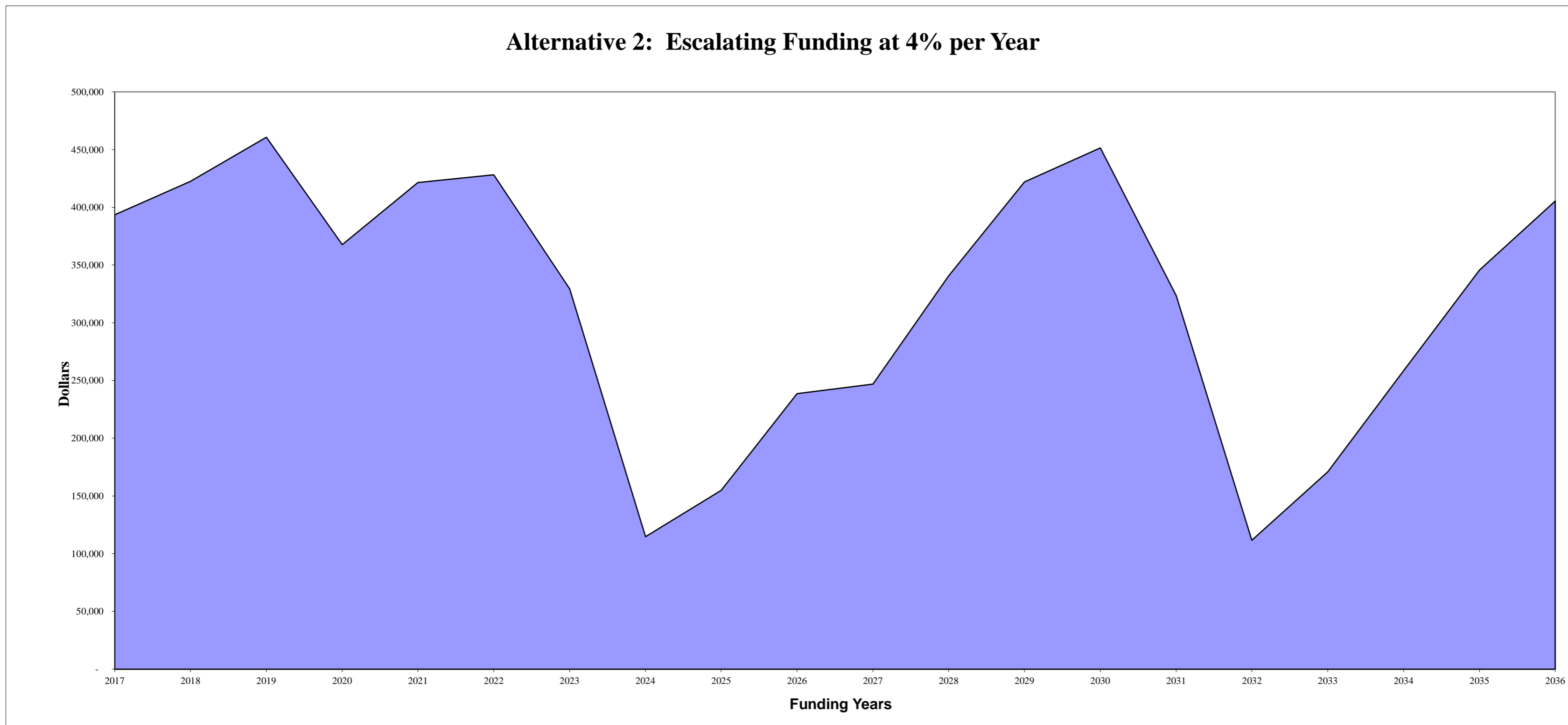
SPECIAL ASSESSMENTS				
First Second	Per Year Per Year	Totals		
		\$0 \$0	Per Unit Per Unit	\$0 \$0

SETTINGS (analyzed by year)			
Starting amount (\$):	5000		
Increment by (%):	4		
Step (%):			
Every	1	year	
Frequency:	10	time	

Projected Annual Funding and Expenditures:

Year:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	393,537	422,526	460,706	367,646	421,557	428,256	329,459	114,756	154,822	238,526	246,792	340,641	422,004	451,406	323,559
Capital Expenditures:	59,000	39,655	33,524	165,985	22,510	72,629	179,585	295,354	44,337	5,219	84,196	-	13,687	66,084	221,443
Total Revenue (all sources)	65,816	68,644	71,704	72,925	76,421	79,328	80,788	80,652	84,402	88,924	92,462	93,849	95,051	95,486	93,596

Year:	2032	2033	2034	2035	2036
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	111,543	170,787	258,463	345,575	405,309
Capital Expenditures:	302,479	32,094	4,959	6,810	35,070
Total Revenue (all sources)	90,463	91,339	92,634	93,922	94,804



Alternative 3: Escalating Funding with Special Assessments



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2017	1	\$386,721	\$29,400	\$0	\$0	\$5,357	\$59,000	\$362,478
2018	2	\$362,478	\$29,400	\$0	\$0	\$5,283	\$39,655	\$357,506
2019	3	\$357,506	\$29,400	\$0	\$0	\$5,301	\$33,524	\$358,682
2020	4	\$358,682	\$29,400	\$0	\$0	\$3,331	\$165,985	\$225,428
2021	5	\$225,428	\$29,400	\$0	\$0	\$3,485	\$22,510	\$235,803
2022	6	\$235,803	\$29,400	\$0	\$0	\$2,889	\$72,629	\$195,463
2023	7	\$195,463	\$29,400	\$0	\$0	\$679	\$179,585	\$45,957
2024	8	\$45,957	\$29,400	\$360,000	\$0	\$2,100	\$295,354	\$142,103
2025	9	\$142,103	\$29,400	\$0	\$0	\$1,907	\$44,337	\$129,073
2026	10	\$129,073	\$29,400	\$0	\$0	\$2,299	\$5,219	\$155,553
2027	11	\$155,553	\$29,400	\$0	\$0	\$1,511	\$84,196	\$102,268
2028	12	\$102,268	\$29,400	\$0	\$0	\$1,975	\$0	\$133,643
2029	13	\$133,643	\$29,400	\$0	\$0	\$2,240	\$13,687	\$151,596
2030	14	\$151,596	\$29,400	\$0	\$0	\$1,724	\$66,084	\$116,636
2031	15	\$116,636	\$29,400	\$0	\$360,000	\$0	\$221,443	\$284,592
2032	16	\$284,592	\$29,400	\$0	\$0	\$173	\$302,479	\$11,686
2033	17	\$11,686	\$29,400	\$0	\$0	\$135	\$32,094	\$9,126
2034	18	\$9,126	\$29,400	\$0	\$0	\$504	\$4,959	\$34,071
2035	19	\$34,071	\$29,400	\$0	\$0	\$850	\$6,810	\$57,512
2036	20	\$57,512	\$29,400	\$0	\$0	\$778	\$35,070	\$52,619

Alternative 3: Escalating Funding with Special Assessments

Beginning Balance as of start of year beginning Jan 2017: \$386,721

CONTRIBUTIONS	
FIRST YR	LAST YR
\$29,400.00	\$29,400.00
\$245.00	\$245.00
\$2,450.00	\$2,450.00
\$20.42	\$20.42

per year
per unit per year
per month
per unit per month

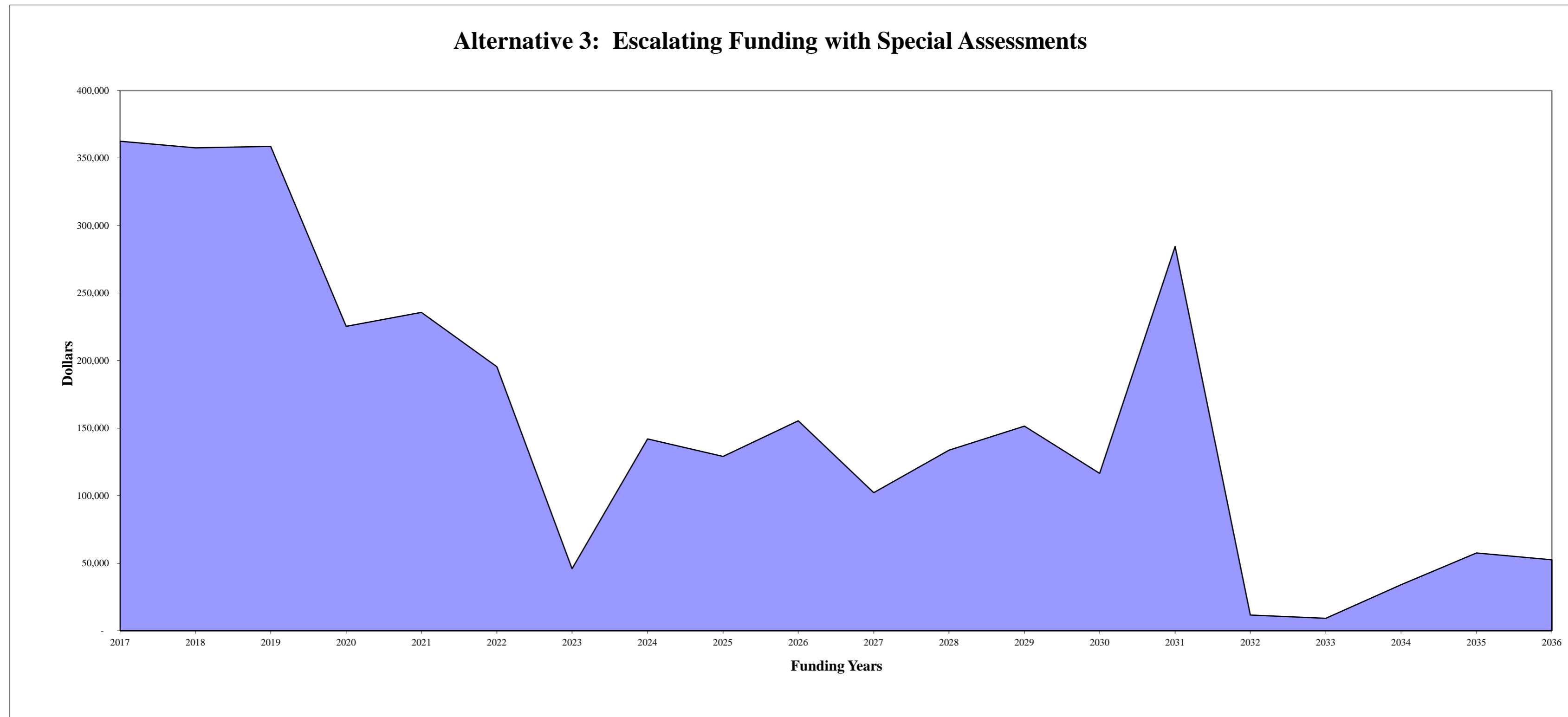
SPECIAL ASSESSMENTS			
		Totals	
First Jan 2024	Per Year	\$360,000	Per Unit \$3,000
Second Jan 2031	Per Year	\$360,000	Per Unit \$3,000

SETTINGS (analyzed by year)	
Starting amount (\$):	2450
Increment by (%):	0
Step (%):	0
Every	3 year
Frequency:	3 time

Projected Annual Funding and Expenditures:

Year:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	362,478	357,506	358,682	225,428	235,803	195,463	45,957	142,103	129,073	155,553	102,268	133,643	151,596	116,636	284,592
Capital Expenditures:	59,000	39,655	33,524	165,985	22,510	72,629	179,585	295,354	44,337	5,219	84,196	-	13,687	66,084	221,443
Total Revenue (all sources)	34,757	34,683	34,701	32,731	32,885	32,289	30,079	391,500	31,307	31,699	30,911	31,375	31,640	31,124	389,400

Year:	2032	2033	2034	2035	2036
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	11,686	9,126	34,071	57,512	52,619
Capital Expenditures:	302,479	32,094	4,959	6,810	35,070
Total Revenue (all sources)	29,573	29,535	29,904	30,250	30,178

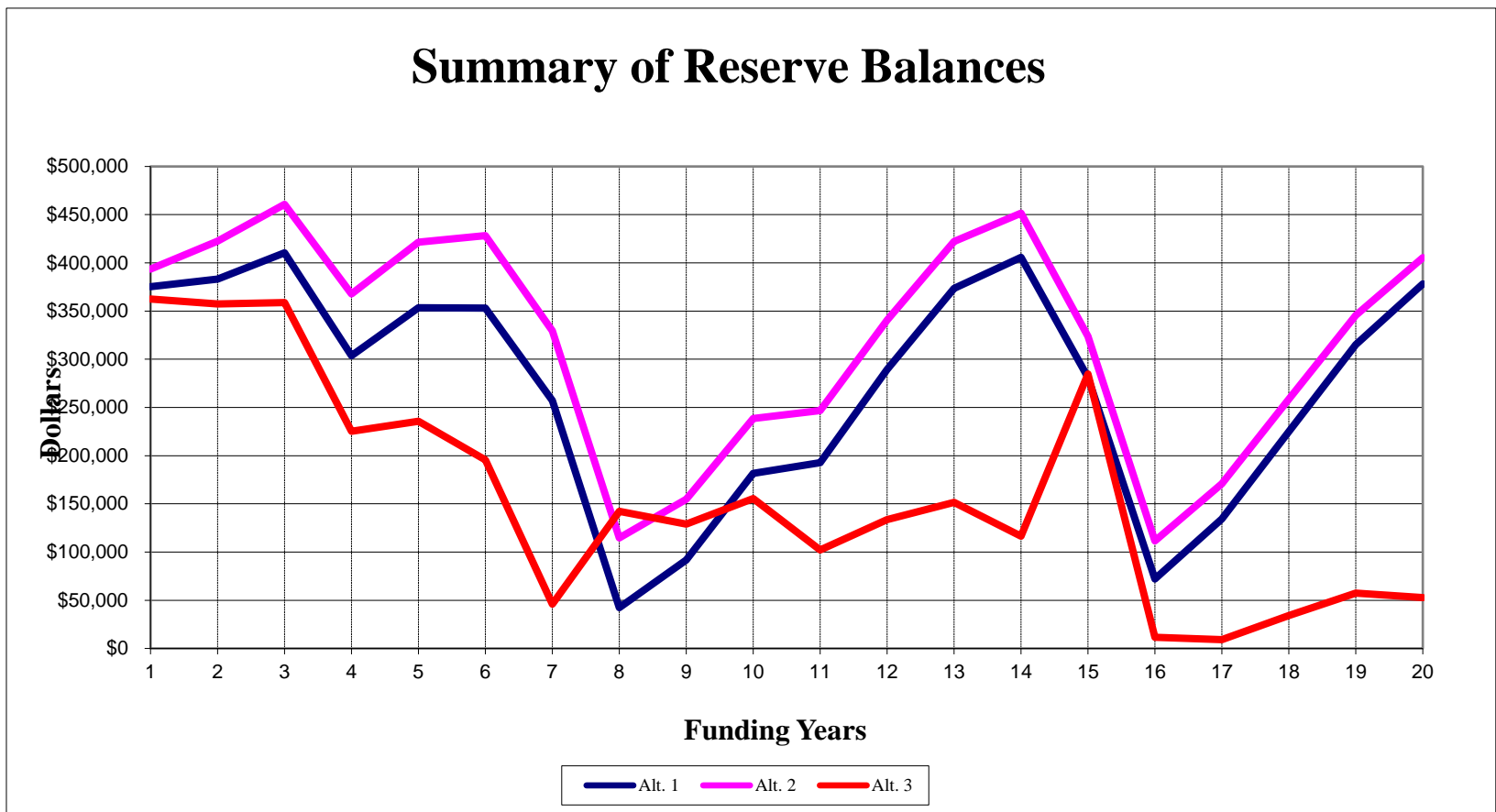


Summary of Reserve Balances



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<u>Year</u>	<u>Year Number</u>	<u>Yearly Expenditures</u>	<u>Alt. 1</u>	<u>Alt. 2</u>	<u>Alt. 3</u>
2017	1	\$59,000	\$375,267	\$393,537	\$362,478
2018	2	\$39,655	\$383,276	\$422,526	\$357,506
2019	3	\$33,524	\$410,417	\$460,706	\$358,682
2020	4	\$165,985	\$303,517	\$367,646	\$225,428
2021	5	\$22,510	\$353,430	\$421,557	\$235,803
2022	6	\$72,629	\$353,221	\$428,256	\$195,463
2023	7	\$179,585	\$257,237	\$329,459	\$45,957
2024	8	\$295,354	\$42,308	\$114,756	\$142,103
2025	9	\$44,337	\$91,727	\$154,822	\$129,073
2026	10	\$5,219	\$181,591	\$238,526	\$155,553
2027	11	\$84,196	\$192,642	\$246,792	\$102,268
2028	12	\$0	\$289,318	\$340,641	\$133,643
2029	13	\$13,687	\$373,551	\$422,004	\$151,596
2030	14	\$66,084	\$405,865	\$451,406	\$116,636
2031	15	\$221,443	\$280,974	\$323,559	\$284,592
2032	16	\$302,479	\$71,958	\$111,543	\$11,686
2033	17	\$32,094	\$134,248	\$170,787	\$9,126
2034	18	\$4,959	\$225,015	\$258,463	\$34,071
2035	19	\$6,810	\$315,264	\$345,575	\$57,512
2036	20	\$35,070	\$378,183	\$405,309	\$52,619



Appendix B: PROJECT PHOTOGRAPHS

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
General view of
community.

Photo Number
1



Description:
View of
longitudinal
cracking
developing in
asphalt paving.

Photo Number
2

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
View of sediment
accumulation
around inlet basin
in curbing.

Photo Number
3



Description:
View of cracking
developing in
curbing.

Photo Number
4

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:

Example of cracking developing in concrete sidewalk.

Photo Number

5



Description:
CMU retaining wall.

Photo Number

6

Location:
Avery Close
Raleigh, NC

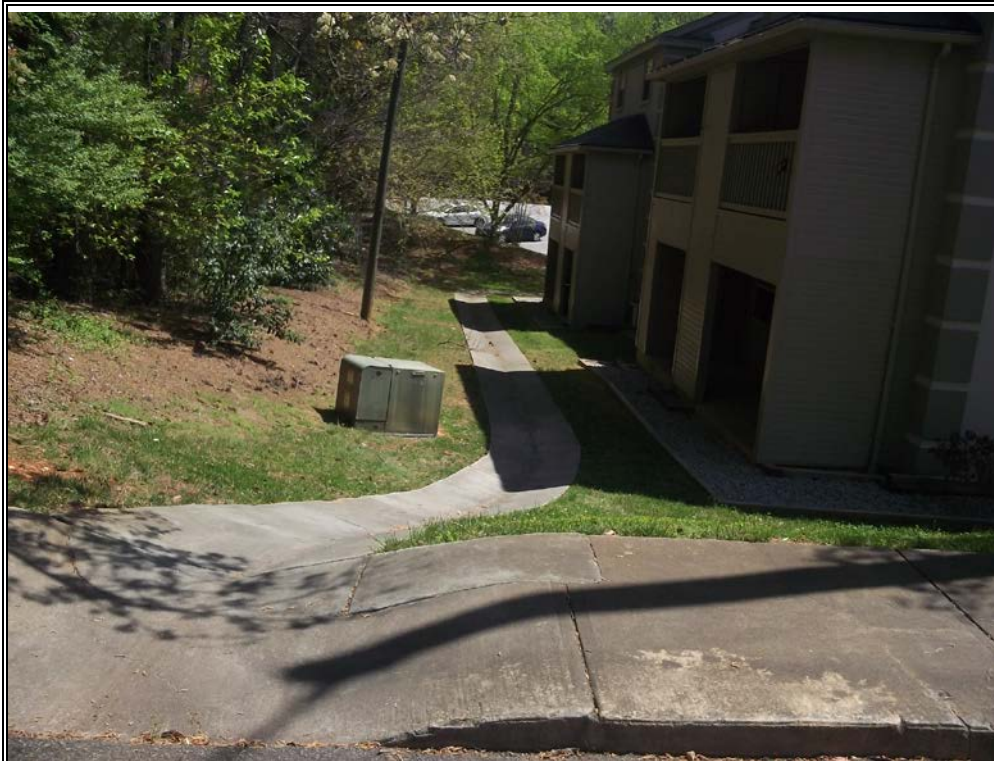
Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Minor cracking
developing in
retaining wall
sections.

Photo Number
7



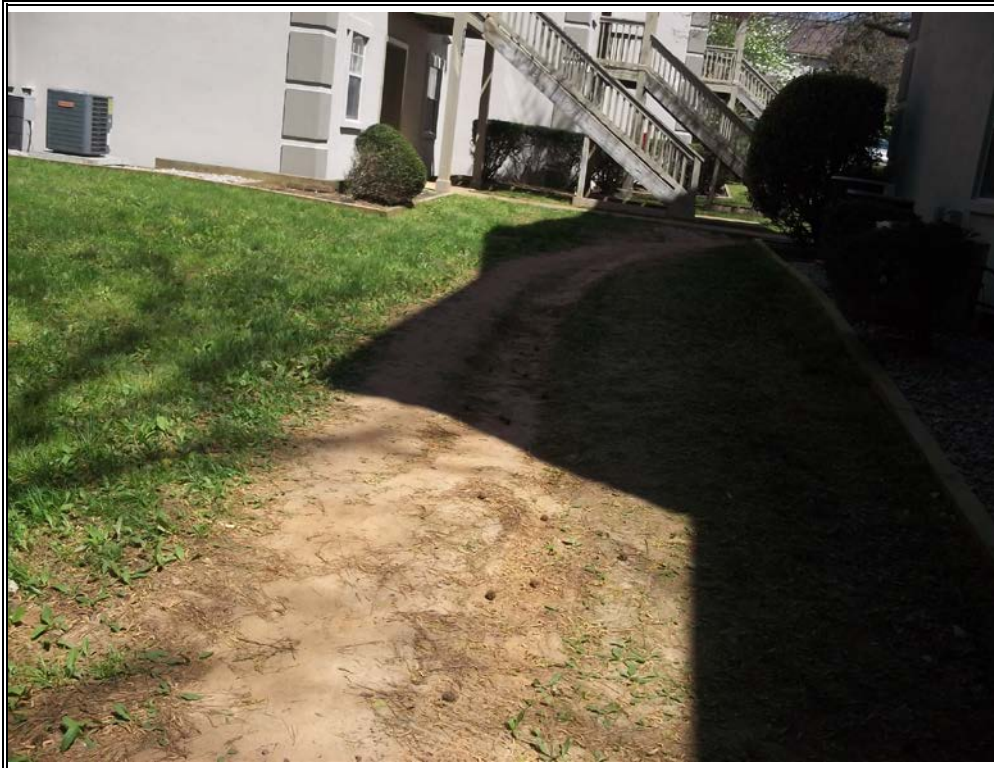
Description:
Concrete lined
drainage swale.

Photo Number
8

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Soil erosion
developing in
common areas.

Photo Number
9



Description:
Soil erosion
undermining
concrete sidewalk.

Photo Number
10

Location:
Avery Close
Raleigh, NC

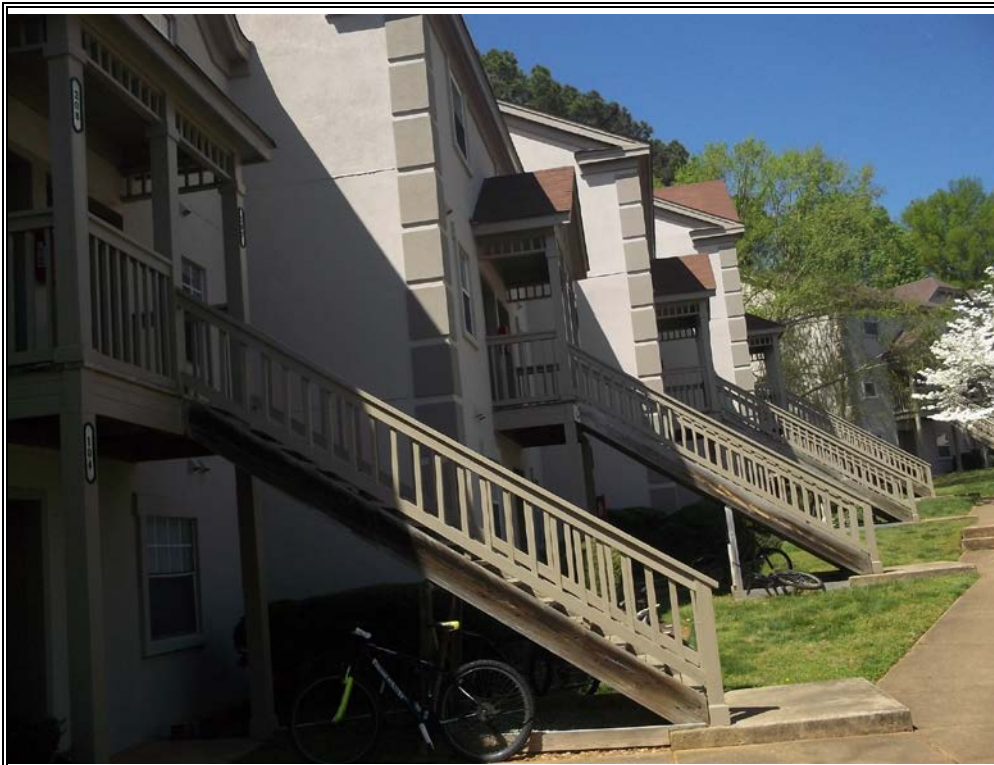
Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Wood fencing at
dumpster area.

Photo Number
11



Description:
Typical front view
of buildings, wood
framed front
porches/steps.

Photo Number
12

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Side view of
buildings, EIFS
and wood siding.

Photo Number
13



Description:
Building roofs and
gutters.

Photo Number
14

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
General rear view
of buildings.

Photo Number
15



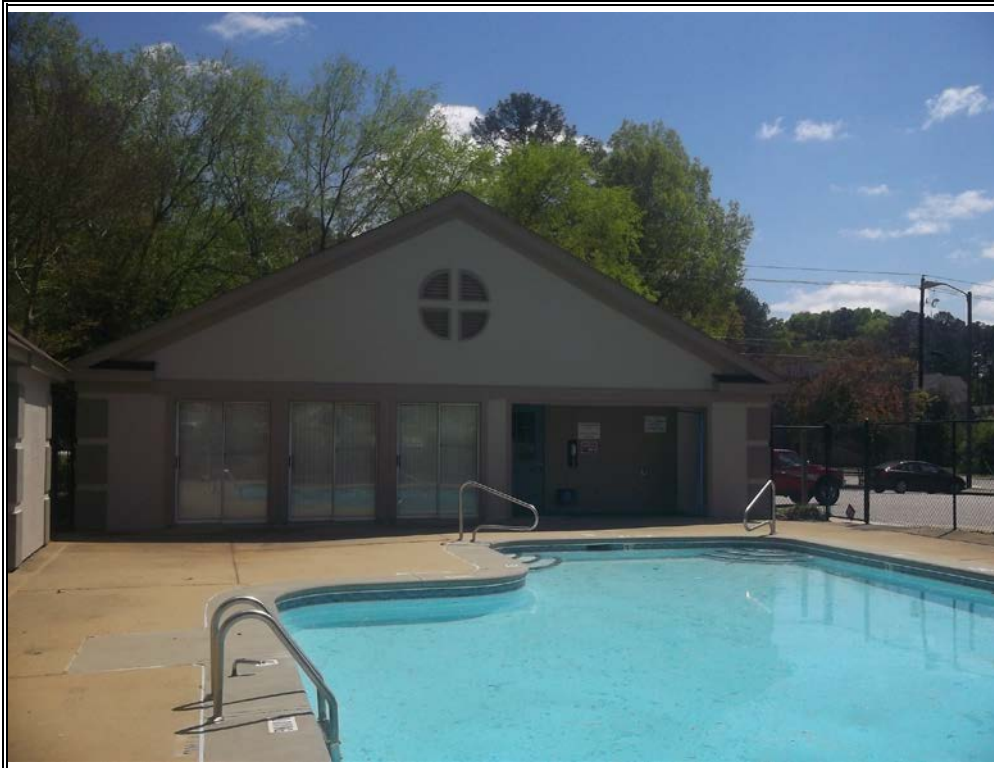
Description:
Close up view of
framing at front
porch steps, center
stringer not
adequately
attached at unit
2510-204.

Photo Number
16

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Swimming pool,
clubhouse building
sliding glass doors.

Photo Number
17



Description:
Clubhouse interior
area.

Photo Number
18

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Bathroom fixtures.

Photo Number
19



Description:
Clubhouse kitchen
cabinets and
appliances.

Photo Number
20

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Water heater and
piping in
clubhouse.

Photo Number
21



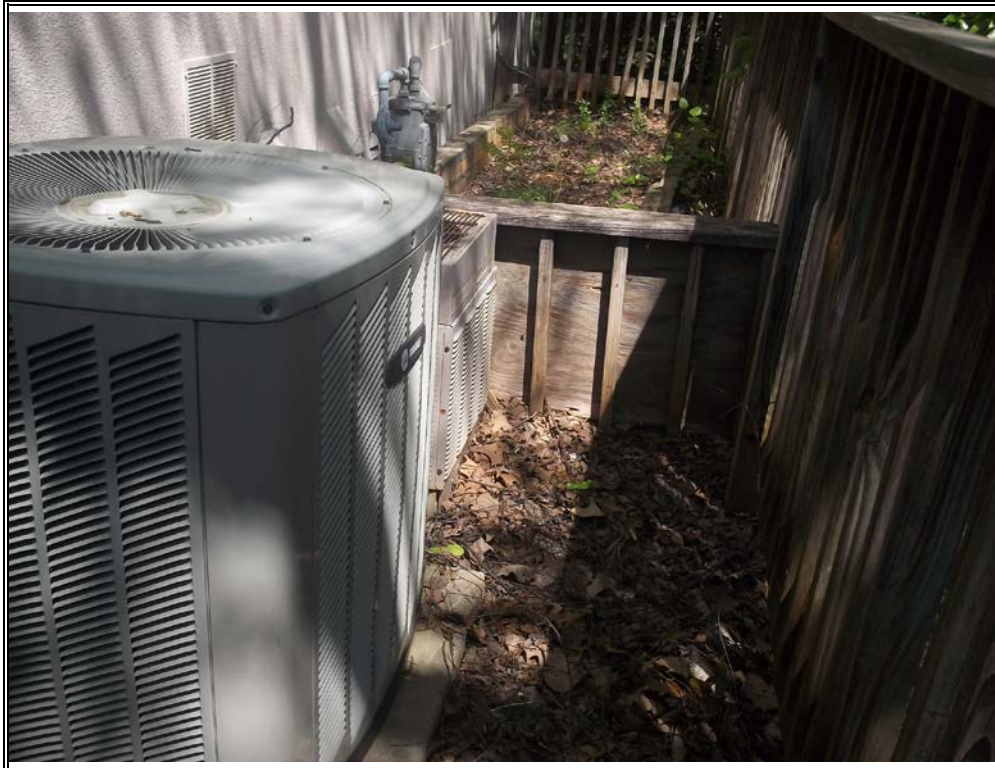
Description:
Laundry room
with leased
equipment.

Photo Number
22

Location:
Avery Close
Raleigh, NC

Photo Taken by:
Kevin R. Giles, RS

Date:
04/05/16



Description:
Heat pumps
serving the
clubhouse
building.

Photo Number
23



Description:
Pool pump and
filtration
equipment.

Photo Number
24