

RESERVE STUDY

**COBBLESTONE TRACE
CONDOMINIUM
ASSOCIATION, INC.**

VIRGINIA BEACH, VIRGINIA



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~ TABLE OF CONTENTS ~

Introduction	1
Requirement for The Replacement Reserve Account	1
Determination of Reservable Components	3
Annual Funding Requirement	3
Reservable Component: Asphalt Pavement	6
Reservable Component: Asphalt Sealcoating	8
Reservable Component: Concrete Curb & Gutter	10
Reservable Component: Concrete Drives	11
Reservable Component: Concrete Sidewalks	12
Reservable Component: Site Lighting	13
Reservable Component: Monument Sign	15
Reservable Component: Community Signage	16
Reservable Component: Masonry Wall	17
Reservable Component: Wood Fencing	18
Reservable Component: Stormwater System	20
Reservable Component: Cluster Mailboxes	21
Reservable Component: Asphalt Shingles	23
Reservable Component: Gutters & Downspouts	25
Reservable Component: Vinyl Siding	26
Reservable Component: Brick Masonry Cladding	28
Reservable Component: Trim	29
Reservable Component: Awnings	30
Reservable Component: Chimney Caps & Enclosures	31
Conclusion	33
Inflation	34
Virginia Statutory Requirements for Reserves	35
Previously Accumulated Funds	35
Exclusions	35
Reserve Funding Options	36
Architectural Reserve Study Note	37

Appendix 'A':

Capital Replacement Reserve Summary	A1
Capital Repair/Replacement Reserve Schedule (Years 1 through 10)	A2
Reserve Analysis (Years 1 through 10)	A3
Capital Repair/Replacement Reserve Schedule (Years 11 through 20)	A4
Reserve Analysis (Years 11 through 20)	A5
Capital Repair/Replacement Reserve Schedule (Years 21 through 30)	A6
Reserve Analysis (Years 21 through 30)	A7
Impact of Inflation/Interest on Accumulated Balance with Interest	A8

Anticipated Replacement Reserve Calendar A9
Cash Flow Graph A10

INTRODUCTION

DLM Architects is pleased to present this replacement reserve study for *Cobblestone Trace Condominium Association, Inc.* Cobblestone Trace an association with 60 units in 15 buildings in Virginia Beach, Virginia. DLM Architects has been requested by the Association Manager, Laura Wenslaff, PCAM®, with Home Rental Realty, Inc. and authorized by the Board of Directors to prepare this reserve study. The study aids the Association in determining the annual funding required for the Replacement Reserve Account. This study is limited to the reservable components of common ownership anticipated to last between four and thirty years. These reservable components are defined by the Declaration and agreed upon in the proposal by DLM Architects initiated on August 25, 2018, and signed by Cindy Mixon, President. The components covered by this study are identified on **page three**.

The conditions presented in this study are as accurate as reasonably possible at the time this study was prepared. These conditions are assumed to be fairly accurate for one year. It must be noted that these conditions will change and conditions discovered in the future may be considerably different from those reported herein. Furthermore, rates of inflation and interest will change which will affect the future financial projections of this study. It is our recommendation that the information contained in this study must be reviewed, and updated accordingly, once a year.

REQUIREMENT FOR THE REPLACEMENT RESERVE ACCOUNT

One of the principal objectives of CIRA (Common Interest Realty Associations) is to maintain the community's common property. Paragraph 3.03 of the AICPA guide states that, "CIRAs may accumulate funds for future major repair and replacement of the common property through the following ways:

1. Funding through periodic assessments over the estimated life of common property.
2. Funding through special assessments at the time a major repair or replacement of common property is needed.
3. Borrowing.
4. Seeking grants or other kinds of programs from governmental entities (such as, energy retrofits, landscape plantings, etc.)
5. Seeking assistance from governmental agencies, for example, financial programs geared toward low to moderate income homeowners, are sometimes available.
6. A combination of those options."

A Replacement Reserve Study addresses item #1 in the list above. A Replacement Reserve Study is advantageous for the long-term security of the homeowners by establishing the annual contributions to the Replacement Reserve Account necessary to provide adequate funds for the future major repair and replacement projects. The replacement reserve study is also an essential tool for determining compliance with requirements of the Association Declarations; Financial Accounting Standards Board - Accounting Standards Codification (FASB ASC) 972-235-50-2 Real Estate Disclosure; and Federal Housing Administration (FHA) regulations requiring a replacement reserve study to determine whether the Association is adequately funded before a resale to their borrower. Furthermore, [CHAPTER 459 of the Code of Virginia § 55-79.83:1](#), requires the following: "*Reserves for capital components. Except to the extent otherwise provided in the declaration and unless the declaration imposes more stringent requirements, the board of directors shall: Conduct at least once every five years a study to determine the necessity and amount of reserves required to repair, replace and restore the capital components.*" The Code of Virginia "§ 55-79.41. Definitions; defines 'capital components' thus: "*When used in this chapter: "Capital components" means those items, whether or not a part of the common elements, for which the unit owners' association has the obligation for repair, replacement or restoration and for which the executive organ determines funding is necessary.*"

Without a Reserve Study, an alternative for accumulating funds would have the Association guess at what people are willing to pay without objection and charge them that amount. This method would please some unit owners, because monthly fees may be somewhat lower; however, the community would run the risk of deterioration if the appropriate funds are not available to cover necessary major repairs or replacement of the common elements when the need arises.

The other alternative for accumulating funds would be for the Association to levy a special assessment. The unit owners will be required to pay the cost of necessary repairs or replacement of deteriorated common elements as they occur. While this might raise the exact amount of money for the major repair or replacement project, it would inequitably assess future unit owners for costs associated with current depreciation of the common elements. Practically, a special assessment would depress resale values ahead of the assessment. This could be a financial burden on some unit owners, since it would have to be paid over a short period of time.

The proper method to accumulate funds for a Replacement Reserve Account is to estimate the future costs of major repair or replacement projects and annually set aside funds in advance to cover these costs when they occur. That is exactly the purpose of this Reserve Study. If the recommendations of the Reserve Study are followed, then this method estimates everyone's contribution into the Replacement Reserve Account, which means that adequate funds will be available when major repair

or replacement of the common elements is necessary. This method also ensures that those who are using the facilities are responsible for the depreciation of those facilities while they are being used.

DETERMINATION OF RESERVABLE COMPONENTS

DLM Architects conducted a visual survey of the buildings, grounds and related components, examined documents and spoke with Laura Wenslaff, PCAM®, Association Manager. We estimated conditions, quantities, and ages of the various common elements included in this study. Various consultants and contractors were contacted to confirm some of our conclusions as to the age and condition of these components.

The common elements are as defined by the Declaration and, therefore, must have the appropriate funds reserved to cover the expense of their major repair or replacement in the future. The common elements included in this study are as follows:

<u>SITE AREA</u>	<u>COMMON BUILDING AREA</u>	<u>DWELLING UNIT BUILDINGS</u>
Asphalt Pavement	Not Applicable	Asphalt Shingles
Asphalt Sealcoating		Gutters and Downspouts
Concrete Curb and Gutter		Vinyl Siding
Concrete Drives		Brick Masonry Cladding
Concrete Sidewalks		Trim
Site Lighting		Awnings
Monument Sign		Chimney Caps and Enclosures
Community Signage		
Masonry Wall		
Wood Fencing		
Stormwater System		
Cluster Mailboxes		

ANNUAL FUNDING REQUIREMENT

It would seem that the annual funding required for a particular reservable component could be established by determining the cost to replace the component and dividing it by its remaining useful life. This over simplifies the formula, so it is important to know that many other factors affect the accuracy of the annual funding requirement.

The estimated replacement costs of various components, is determined from the quantities of each component. This was accomplished by actual field measurements obtained by DLM Architects. After

the quantities are ascertained, costs can be estimated through the extensive database that DLM Architects has available to them. Some of these costs are then verified with local contractors and with similar projects that were recently completed. They are also modified based on the project size, location, schedule and the difficulty of work; however, it should be noted that these costs are estimated and actual price quotations will vary.

Costs of replacement can also vary greatly due to fluctuation in the cost of materials, availability of replacement materials, status of the labor market, status of the economy as a whole and cost of contractor overhead, and insurance costs at the time the replacement work is done. All costs estimated in this Study are based on our recommendation that the Association contract directly with a contractor who specializes in the appropriate trade of the work to be done. In other words, we have not included any costs for the overhead and profit of a general contractor to oversee and coordinate the work of different trades because it is our assumption that each item of major repair or replacement work will be accomplished non-simultaneously with other items of replacement work.

According to information provided in the previous reserve study construction began in 1989. We have used an average of **twenty-nine (29)** years for the present age of the common elements unless otherwise noted.

The anticipated life span of a common element is more difficult to estimate. To estimate what its performance should be, we have to rely on historical experiences with similar products used in the same way. Additional factors that affect the performance of a component include the proper detailing of the materials, the quality of the workmanship with which it was installed, its current condition and its exposure to the surrounding environment. The other big factor that helps project the remaining life of a component is the quality and frequency of maintenance it receives. Better and more frequent maintenance can greatly extend the remaining life of a component. Regular painting, caulking, landscaping, cleaning of storm drains, gutters, and roof drains are important for extending the component's remaining life as well as keeping the community looking good.

In some sections of this study, the current condition of the component is described using terms based upon the USACERL Condition Rating System. An explanation of that system follows on the next page.

USACERL CONDITION DESCRIPTION (per sample unit)

Condition Rating	Category	Amount of Distress	Functionality	Type of Maintenance and Repair
86 – 100	Excellent	Minimal deterioration	Not Impaired	Preventive or minor maintenance or minor repair
71 – 85	Very Good	Minor deterioration	Slightly Impaired	Preventive or minor maintenance or minor repair
56 – 70	Good	Moderate deterioration	Somewhat Impaired	Moderate maintenance or minor repair
41 – 55	Fair	Significant deterioration	Seriously impaired	Significant maintenance or minor repair
26 – 40	Poor	Severe deterioration over a small portion of the sample unit	Critically Impaired	Major repair with short term return on investment
11 – 25	Very Poor	Severe deterioration over a moderate portion of the sample unit	Barely exists	Major restoration with no return on investment
0 - 10	Failed	Severe deterioration over a large portion of the sample unit	Lost	Total replacement

The quantity, anticipated service life and existing condition of the common elements that comprise the reservable components at *Cobblestone Trace* are presented on the following pages.

RESERVABLE ITEM:	ASPHALT PAVEMENT		
TOTAL QUANTITY:	4,600 S.Y.	% OF REPLACEMENT:	100%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	9 YRS.

EXISTING CONDITIONS:

The asphalt pavement includes the drive aisles for Willow Creek Court, Harvest Bend Court, Spring Lake Trail and the adjacent parking spaces. They have an asphalt-based course of bituminous asphalt approximately 2" in depth. The quantity has been changed from that in the previous reserve study due to re-measurement in the field.

The overall condition shows about 25% of the aggregate in the asphalt showing, indicating major wear to the surface. The overall condition is poor (25-40) with extensive alligating, numerous patches and several areas of ponding noted. The asphalt surfaces have reached the end of their effective life. The remaining life reflects the maximum time that the surfaces will remain useable before they must be repaved.

The surfaces were seal-coated about three (3) years ago according to Fred LaVan, director of the Association. Any minor cracks that occur in the pavement need to be sealed with a rubberized asphalt sealer to prevent the intrusion of moisture below the pavement which can liquify the base, further weakening support for the pavement. Any large areas of damage that occur, such as potholes, will need to be cleaned and repaired to grade to prevent further damage from water infiltration.

All minor repairs, such as cracks, should be included in the preventive maintenance program and funded from the regular operating budget as routine repair. All cracks, when they occur, should be bevel cut and replaced with an asphalt-based patching to prevent water infiltration and damage from the winter freeze-thaw cycles. Water draining through the cracks will liquefy the soil under the base, further weakening the support for the pavement.

There are two reasons to repave. The first is the structural failure of the asphalt pavement, which can be seen as "alligating" (breaking of the surface course into salad-plate-sized pieces). The second is aging, which is the erosion of the thickness of the surface course, resulting in a thinner pavement cross-section. This condition creates a very rough surface and is usually accompanied by significant aggregate accumulations in the gutters.

The National Asphalt Pavement Association recommends asphalt surfaces should be overlaid with a minimum 1½" layer of asphalt once every twenty-five (25) years. This projected service life is approximate.

NAPA also recommends that the Association consider the following issues when writing a contract and selecting a contractor for the repaving:

1. Decide who will raise any water valves or sewer inlets to meet the new asphalt around them.
2. Assign specific responsibilities and make notes.
3. Surface drainage is very important. Make sure your contractor plans and builds adequate surface slopes to produce good drainage. So-called "ponding," or standing water, on or near the drives, is undesirable.
4. Once you have taken bids and selected the contractor you want, you are ready for the contract.
5. A construction contract should detail such items as the responsibility for measuring pavement thicknesses, milling the surface for pavement slopes and smoothness, payment schedule and guarantee of the finished product.
6. Alligatored areas of existing pavement do not make a good foundation for an overlay. The contract must be clear that these areas must be dug out, the base recompacted and new pavement placed of a thickness to match the surrounding areas.
7. "Milling" removes 1" to 1½" of the existing surface so the height of the new pavement aligns with the adjacent curb and gutter. In the future, when it becomes time to repave, "milling" the surface is absolutely essential to prevent a reduction in curb height which increases the risk of vehicles "jumping the curb." We have included "milling" in our estimate in the Reserve Schedules at the end of the Reserve Study.
8. When it comes time to repave in the future, we strongly recommend a tack coat over the old pavement before the new asphalt is laid. The tack coat greatly improves the bond between the old and new pavement, reducing the probability that water will get between the layers, freeze and create potholes in the new pavement.
9. It is important to make sure your contractor has adequate liability insurance; ask for written proof of it.

RESERVABLE ITEM:	ASPHALT SEALCOATING		
TOTAL QUANTITY:	4,600 S.Y.	% OF REPLACEMENT:	100%
PRESENT AGE:	3 YRS.	REMAINING LIFE:	2 YRS.

EXISTING CONDITIONS:

Seal coating includes the asphalt pavement surfaces for Willow Creek Court, Harvest Bend Court, Spring Lake Trail and the adjacent parking spaces. The existing surfaces have an asphalt-based course of bituminous asphalt approximately 2" in depth. The pavement surfaces appear to have been seal-coated about three (3) years ago. The seal-coating is rated as in fair (41-55) condition.

The surfaces will need to be seal-coated in two (2) years and every five (5) years after they are repaved.

Failure to seal-coat can result in deterioration of the surface and a shortened projected service life. Before applying the seal-coating, cracks and other defects need to be repaired and leveled to provide a uniform surface. This is based on the standards from National Asphalt Paving Association. They state, "A high-grade asphalt emulsion sealer (sometimes called bituminous emulsified sealer) should be applied every two to five years, depending on climate and wear patterns. Pavement that is sealed regularly looks better and lasts longer. Emulsion sealers consist of asphalt cement treated to mix with water. Once applied, the water evaporates, the material hardens, and the surface is waterproof."

Seal-coating is very important in maintaining structurally sound pavements for the following reasons:

1. Gas and oil can penetrate into the asphalt and break it down prematurely. This is because asphalt is also a petroleum-based product. Spilled gas or oil dissolves the asphalt binder that holds the pavement together. The coal tar in the seal-coat is impervious to gas and oil and it keeps damaging fluids away from the asphalt, allowing the rain to wash the pavement clean.
2. Structurally sound pavements can dry out prematurely from the sun's ultraviolet rays. It makes the asphalt cement brittle and, as a result, the asphalt fines and then the larger aggregate can ravel away from abrasion by traffic. Coal tar forms a tough bond that does not allow the UV rays from the sun to penetrate into the pavement.
3. As the asphalt aggregate is exposed, it is eroded by the traffic over the surface. Once the pavement has been weakened from the above two conditions, water can wash away the aggregates that are the strength of any pavement.

4. Asphalt is not a completely waterproof substance. If water is left sitting on the pavement it can penetrate into the sub-base causing premature pavement failure. Coal tar reduces these effects by making the pavement much more waterproof and the jet black color raises the temperature of the pavement making water evaporate more quickly and makes ice melt more quickly in the winter.

RESERVABLE ITEM:	CONCRETE CURB & GUTTER		
TOTAL QUANTITY:	1,700 L.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The curb and guttering on the property consist of 1,700 linear feet of standard curb without gutter on the exterior perimeter of the drive aisles. The surfaces have a smooth machine finish.

There are a number of cracks as well as a few areas damaged by traffic running over the curb. In addition, there are a few areas that appear to have been replaced in the past. It is important, in order for this structure to reach its anticipated life, that the needed repairs be made now and on a regular basis in the future. The overall condition is rated as variably good (56-70).

Under normal conditions, the curb should last the life of the community. There is some cracking of the curb, but there are no areas of major deterioration. Some of the cracking is at the various intersections which appears to be caused by impact from vehicles. The remainder are linear cracks in the curbs and gutters. All of the curb with cracks need to be repaired as soon as possible to prevent future damage.

There will be more cracking due to settlement and impact from traffic in the future. Areas of additional concern will be at the joints with the concrete drive surfaces and the asphalt pavement, which may show some vegetative growth in the future.

The existing cracks and damaged areas should be repaired now before the winter freeze-thaw cycles compound the damage. Broken sections will need to be removed and recast. Smaller cracks should be cut on a reverse angle and filled with an appropriate concrete mixture.

American Concrete Institute standards state that, under normal conditions, the concrete curbs should last the life of the facility. It is our estimate that, due to the current condition, over a thirty-year period ten percent (10%) of the curb will need replacement. Minor repairs, such as cracks, should be included in the preventive maintenance program and funded from the regular operating budget as routine repair.

RESERVABLE ITEM:	CONCRETE DRIVES		
TOTAL QUANTITY:	400 S Y.	% OF REPLACEMENT:	50%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The existing concrete drives are off the asphalt paved surfaces that belong to the master association exiting to Indian River Road. The surfaces have an embossed finish to look like hand laid cobblestones. There are no areas of major displacement that would constitute a trip hazard. The few cracks appear to be from shrinkage of the concrete while the concrete cured and not from subsidence. The pavement is about four inches (4") thick and show no hollow areas. The concrete drives are rated as in very good (71-85) condition. It is estimated that over a fifty-year period, fifty percent (50%) of the concrete drives will need replacement in this manner due to difficulty matching the color and pattern of smaller areas of concrete.

Any concrete drive pavement that develops cracks larger than ¼" needs to be repaired as soon as possible to prevent vegetative growth. In the future, the joints in the drives will fill with dirt and debris which gives rise to vegetative growth. The pavement surface should be cleaned on a regular basis to remove any chemicals spilled from vehicles. In the future, there may be some additional cracking due to settlement and/or restriction to thermal expansion due to clogging of the expansion joints.

The American Concrete Institute states in several publications that concrete should exceed the life expectancy of the structures. Under normal conditions, the concrete pavement should last the life of the Association, except where damaged by heavy wheeled loads and expanding tree roots.

For each of the two sections of concrete pavement that have to be replaced, we recommend that those portions of the pavement be removed, a proper sub base be established and a new slab be poured with a greater number of control joints. Minor repairs, such as cracks, should be included in the preventive maintenance program and funded from the regular operating budget as routine repairs.

RESERVABLE ITEM:	CONCRETE SIDEWALKS		
TOTAL QUANTITY:	6,536 S.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The sidewalks on the property have a smooth machine finish. The sidewalks are along the edge of the driveways, the head end of the parking spaces and from the main drive to each building entryway.

The existing concrete sidewalks are in variably good (56-70) condition. There are some minor cracks that appear to be from impact or subsidence. There are minor areas of displacement, cracking and spalling throughout the property. There is also ample evidence of localized concrete section replacement. The quantity has been changed due to re-measurement in the field.

These minor cracks can be filled with a polysulfide caulking sealant. In the future, any sidewalk with significant spalling or displacement will need to be repaired as soon as possible to prevent future damage and to reduce any tripping hazard.

The existing cracks should be repaired now before the winter freeze-thaw cycles compound the damage. These areas should be cut on a reverse angle and filled with an appropriate concrete mixture. The displaced areas that constitute a tripping hazard need to be leveled. This can be accomplished by raising the existing slabs or by removing and re-pouring the concrete.

American Concrete Institute standards state that, under normal conditions, the concrete sidewalks should last the life of the facility. It is our estimate that, due to the current condition, over a thirty-year period ten percent (10%) of the sidewalks will need replacement. Minor repairs, such as cracks, should be included in the preventive maintenance program and funded from the regular operating budget as routine repair.

RESERVABLE ITEM:	SITE LIGHTING		
TOTAL QUANTITY:	64 EA.	% OF REPLACEMENT:	100%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	SEE BELOW

EXISTING CONDITIONS:

Quantity	Item	Present Age	Remaining Life
2	Entrance Street Lights w/ 5 Globes each	29 Yrs.	11 Yrs.
2	Parking Lights Double Fixtures	29 Yrs.	11 Yrs.
60	Poles at Patios	29 Yrs.	6 Yrs.
64	TOTAL		

There are two (2) five (5) globe light posts at the entrance drive to the property. The globes are mounted on candelabra type eight foot (8') aluminum poles. The fixtures are in variably good (56-70) repair with no damage to the globes other than normal weathering. They are photo cell activated. None of the lights were on during daylight, indicating that the photo cells do not need to be adjusted or replaced.

The two (2) parking lot lights are double shoe-box fixtures mounted on forty (40) foot concrete poles. Each shoe box fixture contains a sodium vapor lamp and is aluminum with a bronze finish. The fixtures are in variably good (56-70) repair with no damage to the fixtures or the poles other than normal weathering. They are photo cell activated. None of the lights were on during daylight, indicating that the photo cells do not need to be adjusted or replaced.

The remaining fixtures are globe style fixtures mounted on a short base attached to a 4" X 4" post and are located at a corner of each of the Limited Common Element rear yards. The fixtures are in variably good (56-70) repair with no damage to the globes other than normal weathering. They are photo cell activated. None of the lights were on during daylight, indicating that the photo cells do not need to be adjusted or replaced.

Eventually the lights will need to be replaced due to corrosion, clouding of the lenses and the development of more efficient lighting standards. Routine painting and replacement of the lamps should be handled as part of the preventive maintenance program and funded from the operating budget.

Care should be taken to avoid damaging the posts with string trimmers and other yard maintenance equipment. String trimmers are especially a problem as they can cut into the metal and weaken the post as well as providing an opening for corrosion. Instead of using string trimmers for grass and weed control at the posts, it is recommended that a herbicidal control be sparingly applied by the lawn maintenance crews to extend their remaining life.

The Capital Repair/Replacement Summary includes total replacement due to aging poles and fixtures and newer, more efficient luminaires becoming available.

RESERVABLE ITEM:	MONUMENT SIGN		
TOTAL QUANTITY:	1 EA.	% OF REPLACEMENT:	100%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	6 YRS.

EXISTING CONDITIONS:

The monument signage consists of one (1) small sign at the entrance to the property. The entrance sign on Indian River Road is mounted on the existing brick masonry wall. The sign and foundation appear to be in good condition (56-70).

The sign is a single sided 1' x 3' x 1¾" carved and painted wood sign. There are no signs of damage to the sign. The lettering of the sign is painted and over time will fade. The sign structure and lettering has been maintained and should be periodically cleaned and painted to last its life expectancy.

RESERVABLE ITEM:	COMMUNITY SIGNAGE		
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TOTAL QUANTITY:	8 EA.	% OF REPLACEMENT:	100%
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PRESENT AGE:	29 YRS.	REMAINING LIFE:	6 YRS.
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EXISTING CONDITIONS:

There are eight (8) miscellaneous signs mounted on metal posts. Due to the low cost of replacement these signs should be handled in the existing maintenance budget. Their overall condition is good (56-70).

RESERVABLE ITEM:	MASONRY WALL		
TOTAL QUANTITY:	213 L.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

This item was not in the previous reserve study; however, it appears to meet the requirements for inclusion on the replacement reserve schedule in that: a) it is a common element; b) it has a replacement or major repair cycle greater than 3 years and less than 30 years; and c) its cyclical cost exceeds a reasonable threshold value for a community of this size.

The brick masonry perimeter wall is on either side of the entrance to the property along Indian River Road. The construction is comprised of varying heights of brick walls interspersed with 2' x 2' x 4' brick columns.

There are an additional ten (10) brick columns used to support the wood fence along Indian River Road. The top cap consists of masonry brick laid flat with no flashing over the course below. The top caps of the columns are not sloped for drainage. This condition allows more moisture to penetrate the mortar joints into the interior of the wall, thus shortening its life. There are also no indications of any control joints in the wall construction and thus there is some limited cracking of the mortar. Neither section of the wall shows any lateral deflection. The overall condition is rated as variably good (56-70).

The lack of control joints and the moisture penetration will result in cracks occurring in the wall from the expansive forces of freezing water in the wintertime. This cracking will result in loose mortar as well as some fractured bricks.

RESERVABLE ITEM:	WOOD FENCING		
TOTAL QUANTITY:	1,400 L.F.	% OF REPLACEMENT:	100%
PRESENT AGE:	6 YRS.	REMAINING LIFE:	14 YRS.

EXISTING CONDITIONS:

The previous reserve study include the wood fences on the sides of the rear limited common element (LCE) yards. In accordance with Laura Wenslaff, Association Manager and in accordance with Article 4.2.2 Vertical Boundaries of Units Paragraph (2) The patio, privacy fence bordering the patio and storage shed, and the land located outside the unit but within (privacy) fenced area immediately to the rear of the unit, and which service a particular unit, are Limited Common Elements for the use and benefit of that Unit. As an LCE, they are the maintenance responsibility of the Unit Owner and are excluded from this reserve study.

There is 1,400 linear feet of wood fence on the four sides of the perimeter of the property. Construction consists of 4" x 4" posts, 2" x 4" stringers and 1" x 4" x 6' slats. It is a dog-ear stockade style fence. The fence along Indian River Road is painted with a white opaque stain. The fence's condition is very good (71-85) with no damage to the fence.

The fence shows no warping and/or twisting. It does not appear that the fence posts were placed in concrete at installation. This has increased the chance that the fence will begin to sag due to rot in the posts.

On a periodic basis, the stockade fence should be repaired, chemically washed and preservatively treated. The stockade fence should have all of the posts capped on top to prevent any water damage. We recommend capping them with a prefabricated copper or aluminum post cap to extend the life of the posts past the expected remaining life.

The normal life expectancy of pressure treated lumber structures, if left exposed, is approximately twenty (20) years. The wood deteriorates where water is absorbed into the wood end grain. Repeated rainstorms wet the exposed wood members, gradually leaching the original treatment chemicals from the wood, leaving the wood unprotected from the elements. As that happens, wood destroying organisms begin their attack on the wood, leading to its rapid demise. Continued regular cleaning and sealing of the wood are necessary to maximize the life expectancy of the pressure treated wood. Repair the fence posts wherever necessary. It is unlikely that the cost of properly repairing the existing fence will exceed the cost of replacing it if these steps are taken to preserve the wooden fence. Taking these steps will greatly increase the life of the fencing.

Care should be taken to avoid damaging the fence posts and boards with string trimmers and other yard maintenance equipment. String trimmers are especially a problem, because they can cut into the wood, weakening it and providing an opening for rot and insects. Instead of string trimmers, we recommend that the lawn maintenance crew sparingly apply a herbicide to control grass and weeds around the posts and boards. Switching to using a herbicide will extend the remaining life of the fence.

We recommend that the Association consider replacing wood fencing with vinyl or aluminum fencing, which are more durable and require less maintenance than wood.

RESERVABLE ITEM:	STORMWATER SYSTEM		
TOTAL QUANTITY:	1,400 L.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The stormwater system includes two (2) double drop inlets, ten (10) field inlets, and approximately 1,400 linear feet of reinforced concrete pipe (R.C.P.) along the drives. It discharges to the City of Virginia Beach stormwater system. This was confirmed by the Virginia Beach Stormwater Management Division.

A surface inspection of the system revealed no apparent major problems. The overall condition of the storm drainage system is variably good (56-70). The system requires only some maintenance and is showing just minor deterioration. The inlets and outfalls have some debris accumulation, which should be cleaned out as part of the regular preventive maintenance program. Periodically removing silt, trash, and other debris helps avoid clogs and prevent pollutants from entering bodies of water downstream. There were no indications of backups or major flooding into the parking lot during times of heavy rain. The stormwater system was not inspected during a rainstorm.

Under normal conditions, stormwater systems should last the life of the community. Over time, the frames or covers on curb inlets may break or crack, in which case, they should be replaced as soon as the damage occurs. It is also possible that there may be some cracking in the system due to settlement or expanding tree roots. The future costs with the partial replacement of a portion of this item cannot be adequately determined without more data on the condition of the concealed piping. Conducting periodic internal video inspections of the system will help find leakages, which can result in soil subsidence and the collapse of the asphalt pavement or turf above the piping. Severely broken or cracked sections of the system should be replaced as soon as the damage occurs. Over a thirty (30) year period, it is estimated that ten percent (10%) of the stormwater system will need replacement.

Keeping the field inlets free of leaves and other debris should be an ongoing maintenance responsibility and should be funded in the maintenance budget, along with the repair of minor defects in the stormwater system.

RESERVABLE ITEM:	CLUSTER MAILBOXES		
TOTAL QUANTITY:	4 EA.	% OF REPLACEMENT:	100%
PRESENT AGE:	2 YRS.	REMAINING LIFE:	28 YRS.

EXISTING CONDITIONS:

There are four (4) centralized mailbox pedestals. Each is a beige powder-coated aluminum structure. They are on poured concrete slabs. Each slab houses two (2) box mail receptacles, each with sixteen (16) mail slots, one (1) outgoing mail slot and two (2) box package receptacles. Due to the limited quantity and long anticipated service life of the individual items, we have elected to treat the mailbox structures as a single entity for the purpose of creating a reserve. In accordance with information provided by Fred LaVan, Director these were installed about two (2) years ago.

The pedestals and boxes are constructed of aluminum and are USPS approved pedestal cluster box units manufactured by Florence Manufacturing. The boxes are accessed from the rear through the master door panel. Each individual door includes a five (5) pin cylinder cam lock with a dust/rain shield and three (3) keys. The clusters are mounted with anchor bolts to concrete pads. The USPS in Virginia Beach stated that this type of mailbox in a condominium community is owned and maintained by the Association.

During their service life, the cluster mailboxes will need to be replaced only when damaged by vehicular impact or vandalism, which should be covered under the Association’s master insurance policy. The condition of the mailboxes appears to be excellent (86-100). Periodic repainting will ensure that the mailbox enclosures reach their intended life expectancy.

We recommend the Association consider having mailbox shelters constructed to protect these components from the corrosive effects of the weather and to increase the comfort of the mailbox users during inclement weather.

Without a shelter to protect these mailboxes from the weather, these mailboxes will need a regular coat of paint to preserve their appearance. Eventually, multiple coats of paint create a build-up of paint thickness that will detract from their appearance. Furthermore, locks and hinges will fail and finding spare parts will become more difficult. As a result, there is a need to include these items in the reserve schedule. Eventually they will need to be replaced due to corrosion, wear and the lack of spare parts in the future.

It should be noted that there is no handicapped access through the curb to the mailboxes. This may not be in compliance with the Federal Fair Housing Act and the Americans with Disabilities Act. The Association should check and ensure that this condition meets those requirements.

RESERVABLE ITEM:	ASPHALT SHINGLES		
TOTAL QUANTITY:	75,300 S.F.	% OF REPLACEMENT:	100%
PRESENT AGE:	SEE BELOW	REMAINING LIFE:	SEE BELOW

EXISTING CONDITIONS:

Quantity	Item	Present Age	Remaining Life
5020	Bldg. 4	14 Yrs.	16 Yrs.
5020	Bldg. 6	12 Yrs.	18 Yrs.
15060	Bldgs. 7, 8 & 9	11 Yrs.	19 Yrs.
15060	Bldgs. 10, 11 & 13	10 Yrs.	18 Yrs.
30120	Bldg. 2, 3, 5, 12, 14 & 15	9 Yrs.	21 Yrs.
5020	Bldg. 1	8 Yrs.	22 Yrs.
75300		Avg. 10 Yrs.	Avg. 19 Yrs.

The dates of installation are from management and the quantities as confirmed from the previous reserve study. The shingles appear to be a 30-Year, architectural style shingle. The roofs are rated to an 110-MPH wind load, if properly installed. They have been applied over plywood sheathing and felt roofing paper.

The roof wind rating for the roofs should meet , if properly installed, the recently adopted building code in Virginia Beach that gives this area a basic wind speed of 110 mph. The buildings will again have to meet the wind speed rating when the roofs are replaced.

The shingles have been applied over 15/32 plywood sheathing which was replaced as necessary and a water repellent, breather type, cellulose fiber building paper. There are no indications of any major shingle replacement or damage.

The roofs were examined in normal wind conditions. The following conditions were noted on the inspection:

1. The overall condition of the roofs is rated as very good (71-85).
2. The sealing around the roof penetrations appears to be of variably good quality. The rubber boot at vent pipes is particularly susceptible to becoming brittle from long-term exposure to the ultraviolet (UV) rays of the sun.

3. None of the roofs are showing broken shingles as a result of wind damage at this time.
4. It was noted that the underlying roof structures on the buildings show no signs of sagging.
5. There are indications of dry-roof fungus growing on the asphalt shingle surfaces of the roofs. Given the age of the shingles it is not likely they are the newer, fungus-resistant variety. This fungus attacks the asphalt base of the shingle over time as the shingles age. The Association should ensure that replacement shingles are also treated to avoid this problem.
6. The shingles are installed with an appropriate overhang. The typical overhang recommended by many of the roofing shingle manufacturers is ¼". These shingles are correctly supported by a heavy gauge aluminum drip edge which should be reused when the shingles are replaced in the future.
7. The nails fastening the vent flashing, apron flashing, counter flashing and ridge shingles are not corroded.

The reports of the National Roofing Contractors Association indicate that modern roofs begin to age and become brittle under the triple action of heat, sunlight and rain at around fifteen (15) to twenty (20) years. When that happens, the asphalt layer changes in both texture and color. Additional damage can then occur from mechanical sources, such as hail, wind and foot traffic. Theoretically, a roof could last another five (5) years before total failure occurs, if it were not for this becoming more susceptible to mechanical damage. It can be assumed that these roofs will reach their projected anticipated service life, but that some of them may need replacement sooner than others. The Reserve Summary has scheduled for this variance in roof replacement by projecting their average life span. The additional cost of ongoing maintenance, including the replacement of damaged shingles, should be paid from the operating budget.

RESERVABLE ITEM:	GUTTERS AND DOWNSPOUTS		
TOTAL QUANTITY:	2,085 L.F.	% OF REPLACEMENT:	100%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	23 YRS.

EXISTING CONDITIONS:

The white aluminum gutters and downspouts were installed on the front and rear of the buildings. The gutters are a 3" x 4" configuration with a thickness of .040 inches. The gutters drain into 3" x 2" corrugated aluminum downspouts that discharge on grade. The existing gutters and downspouts appear to be in variably good repair (56-70). There are indications of blockages. A number of the gutters are choked with leaves and need to be cleaned.

The Association needs to aggressively pursue the cleaning of gutters/downspouts to clear any debris that might occur and prevent damage to the adjoining fascia, whenever there is an indication of blockages. Leaks from the gutters and downspouts can cause serious damage to the siding and the underlying wooden structure. Regular inspections, particularly during heavy rain conditions, will display any such problems and any gutter blockage can be noted.

Splash blocks should be properly installed to provide positive drainage away from the buildings. Better yet, wherever the downspouts discharge on grade, they should be piped to carry the water away from the foundation walls for a minimum of six feet (6'). This will prevent moisture build-up in the foundation walls and any resulting damage.

The Reserve Study anticipates that the gutters will be replaced at the same time as the roof shingles, due to the high probability that the re-roofing operations will damage the gutters. The downspouts can be reused, so there is no money set aside for their replacement.

RESERVABLE ITEM:	VINYL SIDING		
TOTAL QUANTITY:	50,200 S.F.	% OF REPLACEMENT:	100%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	20 YRS.

EXISTING CONDITIONS:

The vinyl siding on the buildings consists of a 4" Dutch lap double clapboard design with the runs nailed to the framing. The thickness of the siding ranges from .0038" to .0040" based on the 10 samples taken. The vinyl siding was found to be in variably good condition with only minor obvious signs of damage. The overall condition is rated as variably good (56-70).

The following conditions were noted during the inspection:

1. There is chalking of the surface of the vinyl at this time. Chalking is a symptom of thickness loss which is caused by aging of the vinyl by the ultraviolet rays of the sun. The colors used were light and will probably fade or discolor at a slower rate.
2. The siding appears to have many areas of localized replacement show various attempts to repair the continuity of the weather resistive barrier. From appearances, there are other areas in need of repair.
3. This type of barrier has been found to degrade over time. This is particularly prevalent on structures of 15 years and older. It was not possible to inspect the areas beneath the vinyl at the doors and windows. It is likely that there has been water infiltration around some penetrations.
4. There was minor observed physical damage to the siding; in addition, there are a large number of penetrations from both pipes and screws that have not been properly caulked. These penetrations also provide a conduit for moisture to seep into the underlayment and the surrounding structure. All penetrations should be sealed with a continuous bead of polyurethane sealant.

Vinyl siding is not water tight. It admits wind driven rain behind the siding at the end laps and around penetrations in the siding (windows, light fixtures, doors, balconies, electric meters and hose bibs). Once behind the siding, the water drains until it finds a seam or failure of the moisture barrier. It then becomes trapped between the vinyl and the wood underlayment. Over 10 to 20 years, the trapped water causes the original wood siding to rot. Usually the first sign of wood deterioration occurs after a major wind storm resulting in a loss of vinyl siding which failed to stay nailed to the wood siding because

the wood had rotted. In future reserve studies this issue will need to be revisited and the reserve adjusted accordingly.

Moisture entering any portion of the siding can migrate to other portions of the building, resulting in wood rot. This would attract termites, which can result in additional damage.

However, it must be noted that the siding is only the primary barrier to moisture intrusion in the exterior walls. The continuity of the weather resistive barrier is equally important to keeping the exterior walls dry and free from rot. It is extremely difficult to check the continuity of the weather resistive barrier after installation of the siding. We recommend the Association aggressively respond to the first indication of a moisture complaint (usually around the windows and other wall penetrations) with a full scale moisture study of the exterior wall. In future reserve studies these issues will need to be addressed and the reserve adjusted accordingly.

Inspection of the barrier is necessary on a periodic basis.

Because of the wide range of quality in the material available, vinyl siding cannot be considered a lifetime material. Being made from a vinyl plastic, it is susceptible to long term embrittlement as the ultra-violet radiation from the sun slowly bakes out the plasticizers from the vinyl.

Proper preventive maintenance will include washing the siding and re-caulking on a regular basis. Re-caulking of the joints with windows, doors, fixtures, etc, is critical to maintaining the barrier for the buildings. A regular maintenance program should prevent any large scale replacement of siding until it turns brittle at the end of its life. Inspection and repair should be done on an annual basis.

RESERVABLE ITEM:	BRICK MASONRY CLADDING		
TOTAL QUANTITY:	8,200 S.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The brick masonry veneer on the buildings includes the walls on a portion of the front elevations of some of the dwelling units. The brick veneer appears to be in variably good (56-70) condition. As with any type of brick, the life expectancy should exceed the life of the facility. To prevent any deterioration, the mortar on the buildings should be periodically inspected and repointed as needed. Such repairs should be an on-going maintenance responsibility and should be funded from the maintenance budget along with repair of minor defects in the brick work.

The brick veneer has no weep holes and does not have any vertical crack control joints. As a result, there may be limited cracking of the brick veneer, especially at the corners and at changes of the plane of the wall, in the future. While this limited cracking will not be serious, it does provide a path of moisture penetration into the wall. Cracks in the mortar should be pointed up to prevent this intrusion of moisture.

Most cracking will be due to minor settlement and movement. This is normal, and expected, and is not likely to present any major problem unless it is left untended. It was noted that in several areas cracks had been repaired with caulk. This is an acceptable repair although pointing is preferable for appearance and durability.

Currently there are a few areas along the footings that are showing exterior dampness as indicated by the color of the masonry. There are several steps necessary to repair the problem before replacement of that area becomes indicated.

1. All mulch in the planting beds needs to be pulled back from the buildings or waterproofing inserted on all below grade areas. In front of some of the buildings, it appears that the mulch level may be 1 to 2 inches too high.
2. Gutters and downspouts need to be repaired and/or replaced as needed. All downspouts should have extensions to carry the water away from the buildings.

It is estimated that over a thirty-year period, ten percent (10%) of the masonry will need repointing or repairs. Minor repairs, such as cracks, should be included in the preventive maintenance program and funded from the regular operating budget as routine repair.

RESERVABLE ITEM:	TRIM		
TOTAL QUANTITY:	12,720 S.F.	% OF REPLACEMENT:	10%
PRESENT AGE:	29 YRS.	REMAINING LIFE:	INDEFINITE

EXISTING CONDITIONS:

The metal clad wood trim consists of areas around the eaves and soffits. It is painted with a white or beige baked on finish. The trim was found to be in variably good condition (56-70) with no obvious signs of decay or failing finish.

Proper preparation for painting when required is essential. This should include power washing and then sanding areas where needed. Since painting is a regular maintenance item, it must be covered under the operating budget, so we have not included it here. All exterior sealants should be restored simultaneously with painting of the trim.

There are a few cases of nail back-out. The nails that have backed out do not appear to be galvanized and do not have threads to guard against pull out. It is not known if these nails are original to the property or were installed as part of a maintenance program when the buildings were painted.

Normally, about 10% of the trim would require replacement each time the trim is repainted. If wood is used to replace the trim, it should be back primed and ventilated. Then it needs to be periodically chemically washed and treated with a waterproofing stain or paint. At the time this is done, any loose boards should be re-nailed with a spiral shank siding nail. Replacement of any damaged sections can be done at the same time. If the trim is inspected, repaired and painted/stained every 3 to 7 years, the trim could last the life of the facility. Particular attention should be given to inspecting the trim after storms generating high winds that can force water behind the trim and siding.

Consideration should be given to installing a PVC or aluminum clad trim when the siding is replaced. This will reduce maintenance and replacement costs.

RESERVABLE ITEM:	AWNINGS		
TOTAL QUANTITY:	24 EA.	% OF REPLACEMENT:	100%
PRESENT AGE:	5 YRS.	REMAINING LIFE:	10 YRS.

EXISTING CONDITIONS:

Canvas awnings on metal frames are on twenty four (24) entrances to the side entrance units. The awnings are fixed in position. They are dark red in color. They were replaced in 2013 at a cost of \$350 per unit.

The overall condition is very good (71-85) with no significant indications of damage or fading.

The awnings need to be cleaned on a regular basis. Cleaning is important to maintain the integrity of the awning fabric, seams and color. Applying protectant every 18 to 24 months and keeping a regular schedule will extend the life of the awnings. A well-kept awning has a life-span of 15 years or more, whereas neglected awnings have a life expectancy of less than 5 years, making premature replacement an unnecessary expense.

Proper cleaning restores luster, adds life and prevents permanent staining and discoloration. Neglect of awnings is by far the worst enemy. Many awning manufacturers require a certain chemical to be used in cleaning of their awnings and void warranties or guarantees if the incorrect one is used. Once the protective coating on fabric is destroyed, rapid deterioration and discoloration will occur from acid rain, bird droppings and normal ultraviolet light.

The awnings provide shelter against inclement weather and shade/sun protection for the entrances. The primary maintenance requirement for the awnings is the replacement of the canvas. The most likely cause of damage will be from storm-driven debris and aging from the exposure to the ultraviolet rays from the sun. A regular inspection of the canopies and frame should be made as part of a preventive maintenance program.

RESERVABLE ITEM:	CHIMNEY CAPS & ENCLOSURES		
TOTAL QUANTITY:	60 EA.	% OF REPLACEMENT:	100%
PRESENT AGE:	7 YRS.	REMAINING LIFE:	23 YRS.

EXISTING CONDITIONS:

The chimney caps are galvanized or painted sheet metal. There are indications of corrosion on some of the metal roof caps. This would indicate that the fasteners and the caps are corroding and this may lead to water infiltration. Painted or un-coated galvanized metal is very susceptible to accelerated corrosion from the double threat of acid rain and acidic wood smoke.

In accordance with information supplied by Laura Wenslaff, Association Manager, the chimney caps were replaced in 2011. The caps should be repaired when required, replacing any corroded fasteners, re-caulking, removing and repainting the corroded caps. With this maintenance, the caps should reach their expected life. The overall condition of the chimney caps is rated as variably good (56-70).

We recommend replacing the chimney caps with pre-finished aluminum, which should last longer than the current galvanized/painted steel.

All caps must be cross broken on top to create a slope for the rain water to drain. The tops of the new caps need to have a consistent slope. Without a slope, rain water will puddle on the top causing it to corrode more quickly. Since galvanized steel does not readily accept field applied paint, there is little useful means of maintaining these caps by coating them.

The facades of the chimney enclosures are clad in vinyl siding; as such, this is included in that portion of this study.

The chimney enclosures appear to be nailed onto the roof sheathing in a way that may cause separation from the roof structure in strong winds. Similar structures have become detached during moderate wind events. There is no record of whether any inspection or reinforcements were performed when the asphalt shingles were replaced. As was recommended previously, consideration for reinforcing the attachment of these enclosures should be given. This would prevent the loss of these structures during high winds such as those caused by hurricanes. A detailed engineering investigation of every chimney enclosure could be performed to determine the structural integrity of each enclosure; however, a relatively inexpensive structural reinforcement can be added from inside the attics, which could cost about the same as the engineering investigation. The condition of the chimney enclosures is rated as variably good (56-70).

With this maintenance, the enclosures should reach their expected life. The estimate of their remaining life varies significantly depending upon how often each unit owner uses their fireplace. The budgeted cost includes the cap replacement and the structural reinforcement for the chimney enclosures.

All other components indicated as common elements have a life span coincident with the life span of the structures, and should not need replacement or repair unless subjected to catastrophic conditions (fire, lightning, hail, hurricanes, earthquakes, etc.), which should be covered under an adequate property insurance policy.

CONCLUSION

The association is facing several large replacement projects (asphalt pavement and site lighting) in the near future. Because some needed maintenance had been deferred, the association is facing these projects sooner than otherwise anticipated. Construction costs have also escalated in the past 5½ years, because of the stronger economic times during that period. One item defined as a common elements in the association’s documents (brick masonry perimeter fence) was omitted from the previous replacement reserve study and its inclusion here increased the amount needed to fund this project. As a result, the recommended annual contribution to the Replacement Reserve Account is \$50,250.00. Furthermore, in order to have sufficient funds on hand for future projects, we recommend increasing the annual contribution by 3% per year for each year thereafter (Option ‘D’ in the Table below). If the Association chooses another rate of increase, the change to the recommended annual contribution is shown in this Table:

OPTION ▼	RATE OF INCREASE IN THE ANNUAL CONTRIBUTION	RECOMMENDED ANNUAL CONTRIBUTION
A	0%	\$70,750.00
B	1%	\$63,750.00
C	2%	\$56,500.00
D	3%*	\$50,250.00*
E	4%	\$44,750.00
F	5%	\$39,750.00

*The 3% per year projected increase in the recommended annual contribution is illustrated in the graph at the end of this reserve study.

These projections are illustrated in the graph at the end of this reserve study. It must be noted that unplanned expenses for items outside the scope of a reserve study (landscape replacement, painting, insurance deductibles, property upgrades, etc.) can be major expenses and without an adequate operating reserve established for these items, a special assessment may be required to fund these kinds of expenses.

INFLATION

Other factors must be considered when allocating funds for projects of this nature. One of the biggest factors and possibly the most difficult to predict is inflation and the interest rate on invested capital reserve funds. We have allowed for a **3% annual inflation rate** in our calculations. Given the economic patterns over the past decade, we feel this is a conservative figure and will ensure that the return on the fund keeps pace with inflation on an annual basis. Please note that construction cost inflation rates differ from the Consumer Price Index (CPI) and can be obtained from the RSMMeans Construction Costs book.

Because the fund is receiving interest on the current balance on the Replacement Reserve Account and not on the entire cost of the project, it is further necessary to update the replacement cost and therefore the annual contributions based on inflation of construction cost once a year. This assures the Association over the life of the project that the necessary funds are available as the particular components conclude their useful life. See the table on this page for a comparison of a hypothetical \$100,000 project cost inflated over five years to a non-adjusted reserve contribution and an inflation adjusted contribution to the Replacement Reserve Account.

COMPARATIVE EXAMPLE FOR A HYPOTHETICAL RESERVE FUND

COMPARATIVE EXAMPLE FOR A HYPOTHETICAL RESERVE FUND			
COLUMN 1	COLUMN 2	COLUMN 3	
YEAR	<u>RESERVE REQUIRED FOR A \$100,000 PROJECT AT 7% ANNUAL INFLATION OF CONSTRUCTION COST</u>	<u>ACCUMULATED BALANCE IN THE RESERVE BASED ON THE ANNUAL CONTRIBUTION AS A CONSTANT AMOUNT* PLUS A 7% ANNUAL RETURN</u>	<u>ACCUMULATED BALANCE IN THE RESERVE BASED ON AN INFLATION ADJUSTED ANNUAL CONTRIBUTION** PLUS A 7% ANNUAL RETURN</u>
1	\$100,000	\$21,400	\$21,400
2	\$107,000	\$44,298	\$45,796
3	\$114,490	\$68,799	\$73,503
4	\$122,504	\$95,015	\$104,864
5	\$131,080	\$123,066	\$140,255

* The Annual Contribution as a Constant Amount uses the first year's construction cost divided by the 5 year life of this hypothetical component plus a 7% return on each years' contributions. This approach does not consider the inflation of the construction costs. As a result, in the fifth year, the accumulated funds are approximately \$8,000 short of the amount required in column 1.

** Inflation adjusted annual contribution uses the result of the current year's inflation adjusted construction cost divided by the 5 year life of the component. This allows the Replacement Reserve Account to keep pace with inflation.

Column 3 shows that inflating the current year's annual contribution by the previous year's inflation rate provides the financial resources available to keep pace with the inflation rate of the construction cost shown in column 1.

VIRGINIA STATUTORY REQUIREMENTS FOR RESERVES

As of July 1, 2002, [CHAPTER 459 of the Code of Virginia § 55-79.83:1](#) requires the following: Reserves for capital components.

"A. Except to the extent otherwise provided in the declaration and unless the declaration imposes more stringent requirements, the board of directors shall:

1. Conduct at least once every five years a study to determine the necessity and amount of reserves required to repair, replace and restore the capital components;
2. Review the results of that study at least annually to determine if reserves are sufficient; and
3. Make any adjustments the board of directors deems necessary to maintain reserves, as appropriate.

B. To the extent that the reserve study conducted in accordance with this section indicates a need to budget for reserves, the association budget shall include, without limitation:

1. The current estimated replacement cost, estimated remaining life and estimated useful life of the capital components;
2. As of the beginning of the fiscal year for which the budget is prepared, the current amount of accumulated cash reserves set aside, to repair, replace or restore capital components and the amount of the expected contribution to the Replacement Reserve Account for that year; and
3. A general statement describing the procedures used for the estimation and accumulation of cash reserves pursuant to this section and the extent to which the association is funding its reserve obligations consistent with the study currently in effect."

PREVIOUSLY ACCUMULATED FUNDS

According to an account statement furnished by the Association Manager, Laura Wenslaff, PCAM®, there are currently accumulated funds in the Replacement Reserve Account for a total of \$479,041.16 as of November 30, 2018. This value is used in the Capital Repair and Replacement Reserve Summary as "TOTAL PRIOR ACCUMULATION." The funds are in Union Bank, State Farm Bank, and Towne Bank earning various rates of return. Based on the account statement furnished by the manager, we have used a combined interest rate of 0.76% in the calculation to estimate the hypothetical accumulated Replacement Reserve Account balance at year thirty (30) which follows at the end of this study.

EXCLUSIONS

Because FASB ASC 972-235-50-2 does not allow the accumulation of monies for routine maintenance and minor repair components to be included in a Replacement Reserve Account, we don't include them

in this study; however, it should be noted that these components such as painting, termite treatment and repair, power washing, wood preservative treatment, reserve study fees and landscape replacement have the possibility of being major expenses and the Association should plan for them accordingly in their operating budget. This comes from IRS rulings and audit filings which state that these are "maintenance" components and not "contributions to capital." Note that these are IRS definitions, and these are only issues if the association is filing Federal Tax Form 1120 (Corporation Tax Return) rather than form 1120-H (Homeowners Association Tax Form). Therefore, by IRS definitions the assessments collected for these types of future expenses aren't deductible from taxable income under the "contributions to capital" definition. Even if the association chooses to file Form 1120, there are ways that your accountant can adjust for these tax differences. It is not uncommon to have differences between generally accepted accounting principles and tax laws. With regards to non-capital reserves, your accountant should suggest that the cash set aside be segregated from other accounts.

The Reserve Study is predicated on replacing each component in kind. As a result, there are not enough monies anticipated to 'upgrade' the common element to a better grade or product. While a better grade or different product may last significantly longer than the existing product, the Reserve Study cannot plan for that upgrade since it would be the decision of the Board to make that change at the time of replacement. Should the Association choose to upgrade, then the proper funding method is through the Association's operating reserve. Throughout this study we have made notations of components that could be enhanced at the time of replacement which in our opinion would not constitute an 'upgrade'.

RESERVE FUNDING OPTIONS

The financial analysis portion of the Reserve Study is at the end of this study and is broken down into two sections; Capital Repair/Replacement Reserve Summary (on a Component Basis), Capital Repair/Replacement Reserve Schedule (on a Cash Flow Basis) followed by a graph of the future projected Replacement Reserve Account balances. Cash Flow and Component Basis are the two most common funding objectives. Funding on a Component Basis is typically the most conservative funding objective because the calculations for the Replacement Reserve Account contribution include a contingency. Cash Flow Basis means establishing an objective of keeping the Replacement Reserve Account balance above zero, with no contingency for unanticipated expenses. Unfortunately, due to having little or no "margin for error" this funding objective exposes the association to the risk of special assessments should the future predictions vary from actual performance or cost. Threshold Basis is an alternate funding objective which keeps the Replacement Reserve Account above a predetermined dollar or Percent Funded amount (a kind of "middle ground" objective). Statutory Basis (setting the specific minimum amount of Reserves required by state statutes) is one specific form of Threshold

Basis, where the threshold is set to that required by state statute. This is not desirable because it gives the Association little say over their funding objectives and therefore Virginia doesn't have a threshold statute.

Because replacement reserve income and expenses never occur exactly as projected, decide in advance your risk strategy, and your tolerance for special assessment before determining an appropriate Reserve Funding Objective for your association.

ARCHITECTURAL RESERVE STUDY NOTE

The existence of any environmental hazard such as the presence of hydrocarbon contamination, radon gas, lead based paint, mercury, asbestos-containing materials, ureaformaldehyde insulation, chromated copper arsenate (CCA), polychlorinated biphenyls (PCB's), toxins, fly ash, mold and other materials hazardous to human health which may or may not be present in or on the subject community or any site within the vicinity of the community, was not observed by the architect and the architect has no knowledge of any such environmental hazard. The architect is not qualified to detect such substances. All responsibility is disclaimed for any such conditions, or for any expertise or engineering knowledge required to discover them.

The presence of such substances may affect the value of the reserve in the future. The reserve estimate is predicated on the assumption that there is no such material on or in the community and the regulations governing the presence of these substance remains unchanged.

The architect has not taken into consideration any consequence that the Clean Air Act of 1963 (Air Quality Act of 1967 and Amendments passed in 1970, 1977 and 1990) and the Federal Water Pollution Control Act of 1948 (Federal Water Pollution Control Act Amendments of 1972 and Clean Water Act of 1977, Water Quality Act of 1987 and Federal Water Pollution Control Act of 2002), the 2014 FEMA Coastal Study of the Flood Insurance Rate Maps and/or the Chesapeake Bay Preservation Act may have on the community since an Environmental Impact Study or Environmental Site Assessment was not provided.

The Association may wish to retain an expert in these fields to make an accurate determination concerning the existence of such hazardous materials and their impact due to possible existence of environmentally protected property.

The existence of polybutylene pipe was not reviewed because it is not a common element. The reserve estimate is predicated on the assumption that there is no such material on or in the community.

The architect has not taken into consideration any consequence that the Fair Housing Act of 1991 may have on the community, because the buildings are presumed to be in compliance with the Act's design and construction requirements due to their first occupancy occurring after the Act's effective date of March 13, 1991.

It should be noted that any problem with the common elements that may arise and are not addressed by the Association maintenance program and repaired in a timely manner, may cause further deterioration and significantly higher replacement costs that anticipated in this study.

APPENDIX 'A'

The appendix contains the replacement reserve summary, schedules and chart which begin on the next page.

**CAPITAL REPLACEMENT RESERVE SUMMARY FOR:
COBBLESTONE TRACE CONDOMINIUM ASS'N.**

BASED ON DATA CURRENT AS OF: **NOVEMBER 30, 2018** DATE PREPARED: **30-Nov-18**

ITEM	PRESENT AGE	REMAINING LIFE	YEAR TO REPLACE	QUANTITY	UNIT COST	COST OF REPLACEMENT (IN CURRENT \$)	PERCENTAGE OF COST OF REPLACEMENT	PRIOR ACCUMULATION	FUTURE REQUIREMENT (IN CURRENT \$)	ANNUAL CON-TRIBUTION		
ASPHALT PAVEMENT	29	9	2027	4,600 S.Y.	\$12.50	\$57,500	4.64%	\$22,212	\$35,288	\$3,921		
ASPHALT SEAL-COATING	3	2	2020	4,600 S.Y.	\$1.65	\$7,590	0.61%	\$2,932	\$4,658	\$2,329		
CONCRETE CURB & GUTTER	29	11	2029	170 L.F.	\$47.00	\$7,990	0.64%	\$3,086	\$4,904	\$446		
CONCRETE DRIVES	29	21	2039	200 S.Y.	\$55.00	\$11,000	0.89%	\$4,249	\$6,751	\$321		
CONCRETE SIDEWALKS	29	11	2029	654 S.F.	\$35.00	\$22,890	1.85%	\$8,842	\$14,048	\$1,277		
SITE LIGHTING (Globes)	29	11	2029	2 EA.	\$750.00	\$1,500	0.12%	\$579	\$921	\$84		
SITE LIGHTING (Parking)	29	11	2029	2 EA.	\$550.00	\$1,100	0.09%	\$425	\$675	\$61		
SITE LIGHTING (Poles)	29	6	2024	60 EA.	\$1,000.00	\$60,000	4.84%	\$23,177	\$36,823	\$6,137		
MONUMENT SIGN	29	6	2024	1 EA.	\$9,500.00	\$9,500	0.77%	\$3,670	\$5,830	\$972		
MASONRY WALL	29	11	2029	21 L.F.	\$6.00	\$126	0.01%	\$49	\$77	\$7		
WOOD FENCING	6	14	2032	1,400 L.F.	\$35.00	\$49,000	3.95%	\$18,928	\$30,072	\$2,148		
STORMWATER SYSTEM	29	11	2029	140 L.F.	\$135.00	\$18,900	1.52%	\$7,301	\$11,599	\$1,054		
CLUSTER MAILBOXES	2	28	2046	4 EA.	\$4,250.00	\$17,000	1.37%	\$6,567	\$10,433	\$373		
ASPHALT SHINGLES (Average)	10	19	2037	75,300 S.F.	\$3.75	\$282,375	22.77%	\$109,078	\$173,297	\$9,121		
GUTTERS	29	23	2041	2,985 L.F.	\$6.00	\$17,910	1.44%	\$6,918	\$10,992	\$478		
VINYL SIDING	29	20	2038	50,200 S.F.	\$10.00	\$502,000	40.48%	\$193,916	\$308,084	\$15,404		
BRICK MASONRY CLADDING	29	11	2029	820 S.F.	\$18.00	\$14,760	1.19%	\$5,702	\$9,058	\$823		
TRIM	29	11	2029	1,272 S.F.	\$8.00	\$10,176	0.82%	\$3,931	\$6,245	\$568		
AWNINGS	5	10	2028	24 EA.	\$1,200.00	\$28,800	2.32%	\$11,125	\$17,675	\$1,767		
CHIMNEY CAPS	7	23	2041	60 EA.	\$1,250.00	\$75,000	6.05%	\$28,972	\$46,028	\$2,001		
CHIMNEY ENCLOSURES	7	23	2041	60 EA.	\$750.00	\$45,000	3.63%	\$17,383	\$27,617	\$1,201		
TOTAL COST OF PROJECTS:										\$1,240,117	ANNUAL CONTRIBUTION (COMPONENT BASIS)	\$50,494
TOTAL PRIOR ACCUMULATION:										\$479,041	ANNUAL CONTRIBUTION (CASH FLOW BASIS)	\$50,250
PERCENTAGE OF TOTAL COST:										38.63%	RECOMMENDED INCREASE TO THE ANNUAL CONTRIBUTION	3%/YEAR

ABBREVIATIONS: B.F.= BOARD FEET EA.= EACH L.F.= LINEAR FEET L.S.= LUMP SUM S.F.= SQUARE FEET S.Y.= SQUARE YARD SQ.= SQUARE 10'x10'

**CAPITAL REPAIR/REPLACEMENT RESERVE SCHEDULE FOR:
COBBLESTONE TRACE CONDOMINIUM ASS'N.**

SHEET A2

CASH FLOW BASIS

ITEM	2018 YEAR 1	2019 YEAR 2	2020 YEAR 3	2021 YEAR 4	2022 YEAR 5	2023 YEAR 6	2024 YEAR 7	2025 YEAR 8	2026 YEAR 9	2027 YEAR 10
ASPHALT PAVEMENT										\$57,500
ASPHALT SEAL-COATING			\$7,590					\$7,590		
CONCRETE CURB & GUTTER										
CONCRETE DRIVES										
CONCRETE SIDEWALKS										
SITE LIGHTING (Globes)										
SITE LIGHTING (Parking)										
SITE LIGHTING (Poles)							\$60,000			
MONUMENT SIGN							\$9,500			
MASONRY WALL										
WOOD FENCING										
STORMWATER SYSTEM										
CLUSTER MAILBOXES										
ASPHALT SHINGLES (Average)										
GUTTERS										
VINYL SIDING										
BRICK MASONRY CLADDING										
TRIM										
AWNINGS										
CHIMNEY CAPS										
CHIMNEY ENCLOSURES										
TOTAL COST IN 2018 DOLLARS			\$7,590				\$69,500	\$7,590		\$57,500
TOTAL COST IN INFLATION										
ADJUSTED \$ @ 3.0% INFL RATE			\$8,052				\$82,987	\$9,335		\$75,024

RESERVE ANALYSIS FOR:

SHEET A3

COBBLESTONE TRACE CONDOMINIUM ASS'N.

CASH FLOW BASIS

ITEM	2018 YEAR 1	2019 YEAR 2	2020 YEAR 3	2021 YEAR 4	2022 YEAR 5	2023 YEAR 6	2024 YEAR 7	2025 YEAR 8	2026 YEAR 9	2027 YEAR 10
TOTAL COST IN INFLATION										
ADJUSTED \$ @ 3.0% INFL RATE			\$8,052				\$82,987	\$9,335		\$75,024
CONTRIBUTION PER UNIT	\$838	\$863	\$889	\$915	\$943	\$971	\$1,000	\$1,030	\$1,061	\$1,093
TOTAL ANNUAL CONTRIBUTION										
ADJUSTED @ 3.0% ANNUALLY	\$50,250	\$51,758	\$53,310	\$54,910	\$56,557	\$58,254	\$60,001	\$61,801	\$63,655	\$65,565
TOTAL ACCUMULATED BALANCE	\$529,291	\$581,049	\$626,307	\$681,216	\$737,773	\$796,027	\$773,041	\$825,507	\$889,163	\$879,703
ACCUM. BALANCE W/INTEREST										
AT 0.8% INTEREST RATE	\$533,314	\$589,518	\$639,600	\$699,788	\$762,093	\$826,581	\$809,703	\$868,722	\$939,463	\$937,072

**CAPITAL REPAIR/REPLACEMENT RESERVE SCHEDULE FOR:
COBBLESTONE TRACE CONDOMINIUM ASS'N.**

SHEET A4
CASH FLOW BASIS

ITEM	2028 YEAR 11	2029 YEAR 12	2030 YEAR 13	2031 YEAR 14	2032 YEAR 15	2033 YEAR 16	2034 YEAR 17	2035 YEAR 18	2036 YEAR 19	2037 YEAR 20
ASPHALT PAVEMENT										
ASPHALT SEAL-COATING			\$7,590					\$7,590		
CONCRETE CURB & GUTTER		\$7,990								
CONCRETE DRIVES										
CONCRETE SIDEWALKS		\$22,890								
SITE LIGHTING (Globes)		\$1,500								
SITE LIGHTING (Parking)		\$1,100								
SITE LIGHTING (Poles)										
MONUMENT SIGN										
MASONRY WALL		\$126								
WOOD FENCING					\$49,000					
STORMWATER SYSTEM		\$18,900								
CLUSTER MAILBOXES										
ASPHALT SHINGLES (Average)										\$282,375
GUTTERS										
VINYL SIDING										
BRICK MASONRY CLADDING		\$14,760								
TRIM		\$10,176								
AWNINGS	\$28,800									
CHIMNEY CAPS										
CHIMNEY ENCLOSURES										
TOTAL COST IN 2018 DOLLARS	\$28,800	\$77,442	\$7,590		\$49,000			\$7,590		\$282,375
TOTAL COST IN INFLATION										
ADJUSTED \$ @ 3.0% INFL RATE	\$38,705	\$107,198	\$10,822		\$74,117			\$12,545		\$495,146

RESERVE ANALYSIS FOR:

SHEET A5

COBBLESTONE TRACE CONDOMINIUM ASS'N.

CASH FLOW BASIS

ITEM	2028 YEAR 11	2029 YEAR 12	2030 YEAR 13	2031 YEAR 14	2032 YEAR 15	2033 YEAR 16	2034 YEAR 17	2035 YEAR 18	2036 YEAR 19	2037 YEAR 20
TOTAL COST IN INFLATION										
ADJUSTED \$ @ 3.0% INFL RATE	\$38,705	\$107,198	\$10,822		\$74,117			\$12,545		\$495,146
CONTRIBUTION PER UNIT	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267	\$1,305	\$1,344	\$1,384	\$1,426	\$1,469
TOTAL ANNUAL CONTRIBUTION										
ADJUSTED @ 3.0% ANNUALLY	\$67,532	\$69,558	\$71,644	\$73,794	\$76,008	\$78,288	\$80,636	\$83,056	\$85,547	\$88,114
TOTAL ACCUMULATED BALANCE	\$908,530	\$870,890	\$931,713	\$1,005,507	\$1,007,397	\$1,085,685	\$1,166,322	\$1,236,832	\$1,322,380	\$915,347
ACCUM. BALANCE W/INTEREST										
AT 0.8% INTEREST RATE	\$973,239	\$942,710	\$1,011,160	\$1,093,199	\$1,103,413	\$1,190,681	\$1,280,980	\$1,361,762	\$1,458,308	\$1,059,266

**CAPITAL REPAIR/REPLACEMENT RESERVE SCHEDULE FOR:
COBBLESTONE TRACE CONDOMINIUM ASS'N.**

SHEET A6

CASH FLOW BASIS

ITEM	2038 YEAR 21	2039 YEAR 22	2040 YEAR 23	2041 YEAR 24	2042 YEAR 25	2043 YEAR 26	2044 YEAR 27	2045 YEAR 28	2046 YEAR 29	2047 YEAR 30
ASPHALT PAVEMENT										
ASPHALT SEAL-COATING			\$7,590					\$7,590		
CONCRETE CURB & GUTTER										
CONCRETE DRIVES		\$11,000								
CONCRETE SIDEWALKS										
SITE LIGHTING (Globes)										
SITE LIGHTING (Parking)										
SITE LIGHTING (Poles)										
MONUMENT SIGN										
MASONRY WALL										
WOOD FENCING										
STORMWATER SYSTEM										
CLUSTER MAILBOXES									\$17,000	
ASPHALT SHINGLES (Average)										
GUTTERS				\$17,910						
VINYL SIDING	\$502,000									
BRICK MASONRY CLADDING										
TRIM										
AWNINGS						\$28,800				
CHIMNEY CAPS				\$75,000						
CHIMNEY ENCLOSURES				\$45,000						
TOTAL COST IN 2018 DOLLARS	\$502,000	\$11,000	\$7,590	\$137,910		\$28,800		\$7,590	\$17,000	
TOTAL COST IN INFLATION										
ADJUSTED @ 3.0% INFL RATE	\$906,668	\$20,463	\$14,543	\$272,177		\$60,301		\$16,860	\$38,895	

RESERVE ANALYSIS FOR:

SHEET A7

COBBLESTONE TRACE CONDOMINIUM ASS'N.

CASH FLOW BASIS

ITEM	2038 YEAR 21	2039 YEAR 22	2040 YEAR 23	2041 YEAR 24	2042 YEAR 25	2043 YEAR 26	2044 YEAR 27	2045 YEAR 28	2046 YEAR 29	2047 YEAR 30
TOTAL COST IN INFLATION										
ADJUSTED \$ @ 3.0% INFL RATE	\$906,668	\$20,463	\$14,543	\$272,177		\$60,301		\$16,860	\$38,895	
CONTRIBUTION PER UNIT	\$1,513	\$1,558	\$1,605	\$1,653	\$1,702	\$1,754	\$1,806	\$1,860	\$1,916	\$1,974
TOTAL ANNUAL CONTRIBUTION										
ADJUSTED @ 3.0% ANNUALLY	\$90,757	\$93,480	\$96,284	\$99,173	\$102,148	\$105,212	\$108,369	\$111,620	\$114,968	\$118,417
TOTAL ACCUMULATED BALANCE	\$99,436	\$172,453	\$254,194	\$81,189	\$183,337	\$228,249	\$336,617	\$431,378	\$507,451	\$625,869
ACCUM. BALANCE W/INTEREST										
AT 0.8% INTEREST RATE	\$245,204	\$320,639	\$405,438	\$234,200	\$338,904	\$386,733	\$498,864	\$598,136	\$679,334	\$803,814

IMPACT OF INFLATION/INTEREST ON ACCUMULATED BALANCE W/INTEREST FOR:

COBBLESTONE TRACE CONDOMINIUM ASS'N.

ASSUMES ADJUSTMENT IN THE ANNUAL CONTRIBUTION = 3.0%

		INFLATION RATE - percent										
*****		0	1	2	3	4	5	6	7	8	9	10
1		\$1,909,174	\$1,623,363	\$1,280,538	\$869,446	\$376,673	(\$213,750)	(\$920,822)	(\$1,767,124)	(\$2,779,473)	(\$3,989,688)	(\$5,435,490)
2		\$2,355,831	\$2,037,971	\$1,657,308	\$1,201,525	\$655,950	\$3,130	(\$777,682)	(\$1,711,125)	(\$2,826,438)	(\$4,158,285)	(\$5,747,729)
3		\$2,931,942	\$2,578,223	\$2,155,320	\$1,649,748	\$1,045,462	\$323,388	(\$539,128)	(\$1,568,971)	(\$2,798,018)	(\$4,264,033)	(\$6,011,718)
4		\$3,674,869	\$3,280,984	\$2,810,874	\$2,249,779	\$1,580,153	\$781,153	(\$171,958)	(\$1,308,512)	(\$2,663,263)	(\$4,277,349)	(\$6,199,431)
5	INTEREST	\$4,632,461	\$4,193,529	\$3,670,601	\$3,047,525	\$2,305,112	\$1,420,587	\$366,943	(\$887,823)	(\$2,381,595)	(\$4,159,189)	(\$6,273,573)
6	RATE	\$5,865,896	\$5,376,377	\$4,794,283	\$4,101,936	\$3,278,355	\$2,298,656	\$1,133,354	(\$252,464)	(\$1,900,095)	(\$3,858,356)	(\$6,184,901)
7	percent	\$7,453,270	\$6,906,867	\$6,258,409	\$5,488,554	\$4,574,360	\$3,488,641	\$2,199,209	\$667,981	(\$1,150,061)	(\$3,308,088)	(\$5,868,852)
8		\$9,494,113	\$8,883,652	\$8,160,661	\$7,303,972	\$6,288,503	\$5,084,556	\$3,656,992	\$1,964,272	(\$42,670)	(\$2,421,748)	(\$5,241,256)
9		\$12,115,058	\$11,432,361	\$10,625,544	\$9,671,448	\$8,542,651	\$7,206,710	\$5,625,271	\$3,753,026	\$1,536,498	(\$1,087,382)	(\$4,192,943)
10		\$15,476,964	\$14,712,686	\$13,811,462	\$12,747,951	\$11,492,176	\$10,008,697	\$8,255,651	\$6,183,627	\$3,734,343	\$839,116	(\$2,582,941)

() = NEGATIVE NUMBER

IT IS VERY IMPORTANT TO NOTE THE IMPACT THAT THE INFLATION RATE HAS ON THE AMOUNT OF INVESTED FUNDS AVAILABLE FOR FUTURE PROJECTS. THE TABLE ABOVE GRAPHICALLY DISPLAYS THE INFLATION RATE FOR A GIVEN RATE OF INTEREST ON THE ADJUSTED ANNUAL CONTRIBUTION. TO USE THIS TABLE, SELECT AN INTEREST RATE FOR YOUR INVESTED FUNDS IN THE LEFT-HAND COLUMN AND READ ACROSS TO THE RIGHT TO SEE HOW THE "ACCUMULATED BALANCE W/INTEREST" IN YEAR 30*, DECREASES WITH THE INCREASE IN THE INFLATION RATE. FOR EXAMPLE: IF THE ASSOCIATION WERE TO INVEST THE ANNUAL CONTRIBUTIONS IN AN INTEREST BEARING ACCOUNT AT 4% INTEREST, THE RESERVE FUND WOULD HAVE AN ACCUMULATED BALANCE W/ INTEREST OF \$1580153 IN YEAR 30 IF THE INFLATION RATE STAYED A CONSTANT 4%. HOWEVER, THAT BALANCE OF \$1580153 WOULD BECOME A BALANCE OF \$-171958 IF THE INFLATION RATE CLIMBS JUST 2%. THIS IS WHY RESERVE STUDIES PREPARED BY DLM ARCHITECTS RECOMMEND INCREASING THE ANNUAL CONTRIBUTION BY THE CURRENT DIFFERENCE BETWEEN THE INFLATION RATE AND THE INTEREST RATE TO PROVIDE ADEQUATE FUNDS FOR FUTURE PROJECTS.

* THIS IS THE VALUE IN THE LOWER RIGHT OF SHEET 3A

ANTICIPATED RESERVE CALENDAR FOR:
COBBLESTONE TRACE CONDOMINIUM ASS'N.

2018		2019		2020	ASPHALT SEAL-COATING,	2021		2022		2023	
2024	SITE LIGHTING (Poles), MONUMENT SIGN,	2025	ASPHALT SEAL-COATING,	2026		2027	ASPHALT PAVEMENT,	2028	AWNINGS,	2029	CONCRETE CURB & GUTTER, CONCRETE SIDEWALKS, SITE LIGHTING (Globes), SITE LIGHTING (Parking), MASONRY WALL, STORMWATER SYSTEM, BRICK MASONRY CLADDING, TRIM,
2030	ASPHALT SEAL-COATING,	2031		2032	WOOD FENCING,	2033		2034		2035	ASPHALT SEAL-COATING,
2036		2037	ASPHALT SHINGLES (Average),	2038	VINYL SIDING,	2039	CONCRETE DRIVES,	2040	ASPHALT SEAL-COATING,	2041	GUTTERS, CHIMNEY CAPS , CHIMNEY ENCLOSURES,
2042		2043	AWNINGS,	2044		2045	ASPHALT SEAL-COATING,	2046	CLUSTER MAILBOXES,	2047	

COBBLESTONE TRACE CONDOMINIUM ASS'N.

