



Reserve Studies

The Complete Guide

2016



BY
Gary Porter, RS, CPA
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Reserve Studies – The Complete Guide

By: Gary Porter and Pierre Del Rosario

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Reserve Studies – The Complete Guide

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Reserve Studies – The Complete Guide

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He has coauthored a number of technical books and has written hundreds of articles on financial matters for community associations. He is a nationally recognized speaker and has made dozens of presentations regarding the homeowners association industry, including presentations to more than 30 state CPA societies. Since preparing his first reserve study in 1982, he has prepared hundreds of reserve studies.

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Mr. March began his career in finance in the early 1980's and since 1984 has specialized in corporate asset and liability management with a focus on risk mitigation. The **March** Group works with association clients providing asset and liability analysis and a diverse mix of financial services. In addition, they developed and coordinate a software and investment management process that is customized for each of their valued clients.

The basis of their systematic "Needs-Based Analysis" and Structured Asset Management Systems ® process provides time saving and dynamic “fiscal” checkups, investment reviews and interactive reporting on the financial health of any organization. The **March** Group has assisted clients by managing in excess of \$850 Million USD.

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Mr. Huntington began his career in association management in 1980 when he founded Huntington Property Services; he was President of the Channel Islands Chapter of CAI and has served on the Board's for the Nevada, Central Arizona and Utah CAI Chapters. He is a well-respected industry and motivational speaker and has spoken at CAI conferences, management companies, executive retreats and strategic meetings in over 25 states.

Mr. Huntington has a wide variety of community management and banking experience, and a wealth of knowledge in the Community Association & Condo / HOA field. In Craig's seminars, leadership conferences and keynote presentations, and throughout his book "Risk: A Road Worth Traveling," Craig shares his stories of success and the wisdom that he's gained from a life spent on a fearless "trial and error" path. As Craig admonishes his audiences, "be willing to make mistakes... and profit from them."

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Mr. Sallee's background is unique with lengthy periods of experience on both sides of the property table as a producer and as planner / financier. This professional blend of business background, coupled with four years community and HOA property management provides experience and insights invaluable in his reserve study inspections and finished reports. Mr. Sallee holds the RS designation from Community Associations Institute and the PRA designation from the Association of Professional Reserve Analysts.

Lynn served the condo and HOA communities in St. Louis for 4 years as a property manager and reserve study provider. Mr. Sallee has managed as many as 15 communities and 2900 condo and HOA units at one time.

Reviewers

Bill Chaffee

Lynn Sallee

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Reviews

I have been working in the community association industry for most of my adult life. As a manager, I always thought I had a good grasp on what a reserve study is.

When I was asked to review this Guide, I readily accepted based on my knowledge of the process. Although I had surprises in several chapters, it was not until I read the chapter on Percent Funded that I realized what I DIDN'T know about reserve studies. Like many others, I made an assumption that everyone was calculating this in the same manner and achieving the same results. It's clear that they are not.

Likewise, I have long been frustrated by the lack of consistency in reserve study reports. The financial reporting standards set forth in this Guide make sense; they make reporting consistent and understandable. The comparison to audit reports issued by CPAs is right on. I also really like the required disclosure of excluded components; it means that I no longer have to make the assumptions about what's included in the study and what is not included.

Great job, and I'm glad I was allowed to review this Guide in advance of publication.

CM, Manager

This Guide presents the in-depth analysis of reserve studies that has been missing in the industry. As a licensed contractor and professional reserve preparer, I've always been very comfortable with the reserve study process. But, the financial reporting framework that has been established by the International Capital Budgeting Institute and supported in this Guide literally take us to a new level of professionalism.

LS, RS, PRA

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Preface

This Guide is specifically intended for the community association industry. Although many of the principles contained herein also apply to other industries, the term “reserve studies” has been uniquely adopted by the community association industry.

There has been much written about reserve studies for the community association industry, but it has primarily been in the form of articles, rather than books. That generally means that no in-depth analysis of the subject has been made. Further, the terminology used within the industry is confusing, and many terms are ill-defined or not defined at all. It almost seems that some writers have purposely tried to cloud the issue.

Consequently, reserve studies still remain a mystery to many within the industry. Our research of other writings has indicated that the majority of writings related to the topic of reserve studies have been both very basic and superficial in nature, and appear to be aimed at individuals who have never previously been exposed to the concept of reserve studies, not at someone who wants to learn more.

While this approach has introduced the topic of reserve studies, it has fallen far short of providing a reasonable explanation of how reserve studies really work and how they should be interpreted. The lack of depth and specificity leaves readers with either a lack of understanding, or requires them to make assumptions (not always correct) about how certain calculations work.

The reserve study is a business process. Period! Too many writers have hidden behind the concept of “A reserve study is both an art and a science” to avoid having to explain how they really make their calculations. Science can be explained. Art is an esoteric term that can’t be explained, so these individuals simply refer to their “art” when they can’t, or don’t want to, explain what they do. The industry has been “fed” the concept of “percent funded” for years, to the point that many believe it to be the sole measurement tool for status of a reserve fund. When you read the chapter on “Percent funded,” you will understand that many reserve preparers calculate this amount differently, and you will see that the difference in results can be dramatic. And, no reserve preparers are explaining how they calculate this crucial percentage, yet they tell you it is completely reliable. Based on our discussions with some reserve preparers, it’s evident that many don’t completely understand this concept themselves, as they can’t even explain how they calculate it.

One of the biggest problems with the reserve study process has been that there is no consistency in reporting. Reserve study companies have each developed their own reporting format, such that, although they may contain similar financial exhibits, reporting formats vary considerably between companies. Although these reports may comply with loose standards regarding the content of a reserve study, the result is that readers of reserve studies are understandably

confused. To understand how bad this issue is, both CAI (Community Associations Institute – which issues the RS [Reserve Specialist] credential) and APRA (Association of Professional Reserve Analysts -

which issues the PRA [Professional Reserve Analyst] credential) have, as part of their certification programs, a requirement that applicants must identify the page of their sample report on which their required disclosures are made. That's astounding, but necessary, because the reports are so different that even the experts have difficulty finding the required disclosures.

An even more distressing factor is that there is no transparency of how calculations are made between reserve study companies. If three different reserve study companies were given exactly the same component list for a representative homeowners association, you would likely find three reports with significant variances in both calculations and recommendations. Some of these differences may be attributable to legitimate differences in professional opinion, but others are due to different approaches in calculations.

Chapter 1 of this Guide, "Introduction to Reserve Studies," although only eighteen pages long, is roughly equivalent to some entire books that have been written by others, in that it presents all the information necessary to understand the basic conceptual framework of reserve studies. The remaining chapters of this Guide present detailed explanations of the theories and calculations underlying the reserve study, the reason they exist, and the reason they are important. Further, we provide detailed examples to show how various calculations are made and the impact of selecting certain calculation methods.

While other writings may have touched on some of these subjects, they have all generally avoided presenting detail examples. That means the reader has been presented with the concept, but no practical means to determine how that concept plays out in the real world. We resolve that by providing you with numerous examples in this Guide.

Many associations have asked how they can be faced with a special assessment when they have consistently performed frequent reserve study updates, sometimes even annually. There are too many possible answers to that question, with the most probable answer being that cost estimates have been too low, but here is a more fundamental answer. There are simply too many "disconnects" in the reserve study process. We identify the most common disconnects and show you how you can avoid them.

Lastly, we make a very strong case for adhering to the recently adopted standards of the International Capital Budgeting Institute (ICBI). This, more than anything else, will move the reserve study process forward to a new platform of professionalism and higher levels of reliability. The ICBI has established basic principles (Generally Accepted Reserve Study Principles) that form the foundation upon which practical standards can be built. Neither CAI nor APRA conceived of the concept of establishing principles. ICBI then established Generally Accepted Reserve Study Standards, based on the underlying principles. Plain, common sense,

but nothing that existed prior to the standards committee of ICBI being willing to tackle this groundbreaking project. The ICBI standards address areas not contained in either CAI or APRA standards:

- Requirements for consistent calculations, or disclosures where calculations vary from the standard
- Software standards for both calculations and report presentation
- Establishment of a uniform financial reporting framework for reserve studies that makes reports easier to understand and providing a consistency in reporting
- Establishment of a report BY the reserve preparer ON the financial presentations contained in the reserve study, something completely missing in CAI and APRA standards

These are standards that have previously been lacking within the industry.

The ICBI standards in whole are:

- General Standards
- Field Standards
- Reporting Standards
- Software standards

Many reserve preparers will initially resist these new standards, partially because they represent a significant change, and partially because they know that they cannot presently comply with the new standards. The authors expect this to change over time, as users of reserve studies force the “old guard” to upgrade to the new standards.

Writing this book has been a challenge to the authors, not only for the hundreds of hours of work in researching and writing, but in interacting with other reserve preparers that are simply unwilling to consider any change.

A couple of reviewers have commented that certain sections of this guide are critical of the industry and existing organizations. Criticizing organizations is not our intent, but a critical analysis of the reserve study process is long overdue. Our intent is to educate, but, it is not possible to educate without pointing out the weaknesses of the present system and explaining how to overcome those weaknesses. It is not possible to ignore those weaknesses, because they exist at the very core of standards that have guided the reserve study industry for the past two decades. The reserve study is a financial report that is based on non-financial data. When comparing the old reserve study standards to those of other organizations that have standards related to financial reporting, the differences are glaring.

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Basic Concepts

100.1 - The authors collectively have been preparing reserve studies for the community association industry since 1982, longer than virtually anyone else in the industry. As active members of CAI (author Gary Porter served as CAI national president in 1998-99), we've had decades of experience and interaction with many different individuals within the industry. What we've discovered is that almost everyone is aware of reserve studies, considers them to be important, and thinks they know how reserve studies are prepared.

100.2 - The reality of reserve study preparation is quite different than what many believe. From our extensive involvement with reserve study organizations, we know that most reserve practitioners cannot agree on concepts and methodologies related to reserve studies. If they can't decide on a common standard, how can anyone else really know what's going on? The general public within the industry is, by and large, completely unaware of these differences of opinion amongst reserve practitioners.

100.3 – Considering this fact, the authors felt compelled to write this book in order to provide a full discussion concerning the issue of reserve studies - a “complete guide”, so to speak. While the authors do have their own bias on certain matters related to the conceptual framework of and preparation of reserve studies, we have disclosed that bias, and also included discussion of opposing points of view. Our goal is to report the facts and let you, the reader, decide.

100.4 - Disclosure – The authors are both members of the board of directors of the International Capital Budgeting Institute (ICBI) and believe that the ICBI reserve study principles and standards are the most appropriate standards for the reserve study industry. Organizations related to reserve studies are discussed in Chapter 2, and reserve study standards are discussed in Chapter 4.

This chapter presents an overview of the concepts of reserve studies rather than in-depth discussions of the subject matter. Each major portion of the reserve study process is discussed in depth in the following chapters, which means you will see some minor duplication.

Exhibits of financial information are contained throughout this Guide to demonstrate concepts discussed in the narrative sections.

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100.5 - Yogi Berra, famous for so many sayings that have been repeated over the years, made three statements that seem to relate directly to the concept of reserve studies:

- “It’s difficult to make predictions, especially about the future.”
- “When you get to a fork in the road, take it.”
- “In theory, there is no difference between theory and practice. In practice, there is.”

These statements are applicable because it IS difficult to make predictions, and the reserve study process will require making predictions in the form of the assumptions inherent to ALL reserve studies. Along the way, you are going to be forced to “take a fork in the road” (make a decision). While you can get professional advice concerning most decisions of this nature, the choice you make still may not be the right decision.

100.6 - Author Gary Porter has made the following two statements many times over the last 30-plus years in his practice of preparing reserve studies and making presentations to association boards:

- “A reserve study is a series of assumptions about future events, not one of which is likely to be exactly accurate.”
- “The purpose of the reserve study is to provide approximately the right amount of money at approximately the right time.”

1.7 - So, what is a reserve study? Within the community association industry, that term is applied to what the commercial world calls a capital expenditure budget. There are two crucial differences between the two terms:

- a) In the community association industry, a funding plan is an essential part of that budget. In other words, the funding plan budgets both capital expenditures AND a revenue stream to provide funding for those capital expenditures. In the commercial world, a funding plan is often not part of the study.
- b) In the community association industry, future capital expenditures are restricted by definition to major repairs and replacements. Capital improvements generally cannot be considered to be part of a reserve study. In the commercial world, new capital improvements are generally part of the capital expenditures budget.

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100.8 – The *Wikipedia* definition is as follows: “A **reserve study** is a long-term capital budget planning tool which identifies the current status of the reserve fund and a stable and equitable funding plan to offset ongoing deterioration, resulting in sufficient funds when those anticipated major common area expenditures actually occur. The reserve study consists of two parts: the physical analysis and the financial analysis. This document is often prepared by an outside independent consultant for the benefit of administrators (Board of Directors or Strata Council Members) of a property with multiple owners, such as a condominium association or homeowners' association (HOA), strata, containing an assessment of the state of the commonly owned property components as determined by the particular association's CC&Rs and bylaws. Reserve studies, however, are not limited only to condominiums and can be created for other properties such as resort (shared vacation ownership) properties, apartment buildings, worship facilities, private schools, private (golf/social) clubs, and office parks. Reserve studies are in essence planning tools designed to help the board anticipate, and prepare for, the property's major repair and replacement projects. For example, such projects would include: replacement of the roof on the building(s), replacement of the boiler, retrofit of the fire alarm devices, and resurfacing of the roadways.”

100.9 – The community association industry tends to look at reserve studies in a vacuum, but the concept of capital budgeting has existed in the business and nonprofit world for decades before the term reserve study ever existed.

100.10 – The *Wikipedia* definition of **capital budgeting** is as follows: “Capital budgeting is the planning process used to determine whether an organization's long-term investments, such as new machinery, replacement machinery, new plants, new products, and research development projects, are worth the funding of cash through the firm's capitalization structure (debt, equity or retained earnings). It is the process of allocating resources for major capital, or investment, expenditures. Many formal methods are used in capital budgeting, including techniques such as accounting rate of return, payback period, net present value, profitability index, internal rate of return, modified internal rate of return, equivalent annuity, and real options valuation.”

100.11 – Although there are clear parallels, the community association industry (because of its assessment structure) is not required to deal with many of the funding issues that exist in the commercial world of capital budgeting. However, two of the techniques discussed above deserve further discussion.

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100.12 – *Wikipedia*'s discussion of **net present value** is as follows: "Capital budgeting involves allocating the firm's capital resources between competing project and investments. Ideally, businesses should pursue all projects and opportunities that enhance shareholder value. However, because the amount of capital available at any given time for new projects is limited, management needs to use capital budgeting techniques to determine which projects will yield the most return over an applicable period of time."

100.13 – *Wikipedia*'s discussion of **internal rate of return** is as follows: "The internal rate of return (IRR) is defined as the discount rate that gives a net present value (NPV) of zero. It is a commonly used measure of investment efficiency."

100.14 – *Wikipedia* also identifies the "**Need for Capital Budgeting**" as follows:

1. A large sum of money is involved which influences the profitability of the firm, making capital budgeting an important task.
2. Long-term investment once made cannot be reversed without significance loss of invested capital. The investment becomes sunk and mistakes, rather than being readily rectified, must often be borne until the firm can be withdrawn through depreciation charges or liquidation. It influences the whole conduct of the business for the years to come.
3. Investment decisions are the base on which the profit will be earned and probably measured through the return on the capital. A proper mix of capital investment is quite important to ensure adequate rate of return on investment, calling for the need of capital budgeting.
4. The implication of long-term investment decisions are more extensive than those of short-run decisions because of time factor involved; capital budgeting decisions are subject to the higher degree of risk and uncertainty than short-run decisions.

100.15 - A complicating factor is that the inflows and outflows may not be comparable: cash outflows (costs) are typically concentrated at the time of the purchase, while cash inflows (benefits) may be spread over many years. The time value of money principle states that dollars today are not the same as dollars in the future (because we would all prefer possessing dollars today to receiving the same amount of dollars in the future). Therefore, before we can place the costs and benefits on the scale, we must make

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sure that they are comparable. We do this by taking the present value of each, which restates all of the cash flows into "today's dollars." Once all of the cash flows are on a comparable basis, they may be placed onto the scale to see if the benefits exceed the costs.

100.16 - The purpose of a reserve study is to provide a plan for the major repair or replacement of association common area components. These are generally considered to be capital expenditures (but not capital improvements) because they are not part of the day-to-day operations of the Association. The reserve study report is simply a long-term capital budget. The report provides estimates of when expenditures are necessary for the major repair or replacement of common area components, then provides a cash flow plan, the goal of which is to ensure that approximately the right amount of money is available at approximately the right time to pay for these estimated expenditures.

100.17 - An example of this would be if you estimated that it will be necessary to paint the condominium buildings in 10 years, and that the estimated cost will be \$100,000. The reserve study will generally recommend that you set aside \$10,000 per year for the 10 years, so that you have the money to pay for the painting contract when it is necessary. (Inflation and investment earnings are disregarded for this example.)

100.18 - The assumption is that the Association will establish a “reserve” bank account (a reserve “fund”) to accumulate monies for future expenditures. Normally, this is accomplished through relatively nominal monthly assessments so that future special assessments do not become necessary.

100.19 - Note that we have been using the term “approximately”. This was done purposely, because when making a 30-year projection, it is not possible to be completely accurate. It is not possible to be completely accurate for even a five-year projection period, much less 30 years. While we do discuss the concept of accuracy in a reserve study report later in this Guide, the key concept to keep in mind is that the reserve study report is simply a plan or a long-term budget; it is not intended to be an absolute prediction of future events.

100.20 - The reserve study consists of two separate parts: the physical analysis and the financial analysis. The physical analysis consists of two parts: the on-site analysis and the component analysis. These do not necessarily have to be performed by the same individual.

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100.21 - The purpose of the on-site analysis is to identify, quantify, and evaluate the condition (component condition assessment) of the common area components to be included in the study. This is generally referred to as establishing the component inventory. While we will refine these steps in Chapter 6, the basic steps are explained below.

100.22 - In general, reserve components are those common area elements that:

- Are the maintenance responsibility of the Association.
- Have limited useful life.
- Do not require annual expenditures (meaning a minimum 2-year useful life).
- Are material in amount.

100.23 - CAI and APRA standards include an additional requirement of “predictable life.” The authors do not agree that predictable life is an appropriate condition, and note that there are a number of common components that do not meet this requirement but are generally included in reserve studies. The authors have observed that the majority of reserve practitioners do not strictly follow the “predictable life” standard.

100.24 - Common area maintenance obligations may generally be identified from three sources:

- The Association’s governing documents, although those documents are often so general in nature as to be of little help. These common areas are often referred to as the contractual maintenance obligations of the Association.
- Statutory components, which are set forth in state statutes for mandatory inclusion in the reserve study. Florida and Delaware are two states that specify mandatory components.
- Personal property (meaning not real property) components such as maintenance equipment, vehicles, or playground equipment. These types of components meet the criteria for inclusion in a reserve study under all sets of national reserve study standards, but are not classified as either contractual or statutory components.

100.25 - Additional steps in the component identification process are establishing a minimum dollar level (referred to as materiality) for inclusion in the study, and deciding what components are excluded as being “lifetime” components, included in the operating budget, or maintained by members rather than the Association.

100.26 - Quantification of common area components is a relatively straightforward process of either counting or measuring each of the previously identified common area components.

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100.27 - The component condition assessment of common area components is a very subjective process. It is unlikely that two individuals will reach exactly the same conclusion as to the condition of a given component. The purpose of evaluating the current condition is to determine the remaining useful life of the component. Various factors come into play in reaching this determination, and this is one place where the expertise of the independent reserve consultant can be very valuable. In the absence of specific information, the remaining useful life is often simply determined by starting with the original estimated life of a component, then deducting the number of years since the component was placed in service.

100.28 - One critical factor to note here is the difference between a reserve study and an engineering study. A reserve study is a limited visual observation process that does not involve invasive testing. The primary purpose of the site visit is to simply support the establishment of the funding plan based upon assumptions of normal maintenance and wear and tear. That is in contrast to an engineering study, which is generally looking at specific factors to determine the structural integrity of selected components and recommend remedial repair actions.

100.29 - The community association industry is unique. It is estimated that one in five Americans now live in some sort of community association. While different types of associations exist, they typically break down physically into two separate types: (1) planned developments, where owners have detached homes that they maintain themselves, and where the Association is responsible only for nonresidential common area maintenance; and (2) multifamily structures such as condominiums, cooperatives, and some townhouse projects, where the Association is responsible for maintaining the residential structures.

100.30 - There are several factors which influence the creations of associations:

- Many residents like the fact that exterior maintenance is part of the package and is not something that they have to worry about individually. They can pay their assessments and let the Association worry about the maintenance issues.
- Many residents buy into an Association to receive the benefit of recreational facilities such as swimming pools, tennis courts, and golf courses that they could never afford individually.
- Many residents move into specific associations to enjoy a certain lifestyle and social structure.

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- Many residents are channeled into this form of housing because the higher density generally converts into lower home purchase prices, thus making housing more affordable.
- Local governments often essentially force developers to create associations to lessen the burden of local government, as the developers will then pay for amenities such as parks, walking trails, school sites, etc.

100.31 – Regardless of the reasons why people buy into an Association, few buyers think about the long-term financial impact of their buying decision. Their decision is usually based on one of the above factors, plus the often overriding financial factor of what the buyer can afford. Many buyers are stretched thin by the combination of mortgage payments and assessment payments, so increases in monthly assessments are not a welcome consideration.

100.32 - Most Association residents are more keenly aware of their own financial situation than that of the Association. They tend to vote by their pocketbook, to keep assessments as low as possible. This is a normal human motivation, and can't be ignored. While board members have the responsibility to make sure the assessments are sufficient to both fund current operations and provide a reserve for future major repairs and replacements, they also pay assessments and vote by their own pocketbook.

100.33 – Additionally, board members may not have sufficient, reliable information on which to make informed decisions about future expenditures. Most reserve studies completely exclude in wall, under slab, and underground utilities from the study on the assumption that they are “lifetime components.” However, “lifetime” is based on the life of the structure, assuming normal maintenance. The life of the structure is virtually always longer than the life of the utilities that are commonly being excluded from reserve studies (generally with no disclosure at all that they are being excluded from the reserve study).

100.34 – The authors have seen nearly a dozen associations that have required complete replacement of all in wall, under slab, and underground utilities, at costs ranging up to a special assessment of \$60,000 per unit. Is it reasonable to exclude these components when they have a reasonably estimable useful life? On the other hand, we have worked with several buildings that are near, or in excess of, 100 years old, which have not required utility replacements. Associations need to be aware of this issue so they can evaluate their construction materials and seek advice from professionals on the status of their major infrastructure systems.

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100.35 - The condominium-type associations are the ones that cause significant maintenance issues and increase the necessity for reserve studies. The reason for this is that the individual residents do NOT control maintenance of their own buildings. They are subject to majority rule and are generally controlled by contract (through governing documents) that give them little option if they are not part of the majority.

100.36 - Unfortunately, these financial problems receive little discussion until things go drastically wrong.

100.37 - If you pay attention to current industry literature, you will notice that topics are largely focused on the social aspects of association living: how to get along with your neighbors, how to handle difficult people, how to deal with rogue board members, etc. This material is also much of the focus of management training and course content at industry conferences and meetings.

100.38 - Little attention is usually paid to the long-term financial aspects of association living. Yet these aspects are what have the most serious impact on individual owners, because they get hit right in their pocketbooks.

100.39 – The Federal Housing Administration (FHA) is an enabler of this process. When the FHA instituted a “tough” 60% reserve funding requirement in 2011, there was much complaining and lobbying against FHA to change that rule. CAI also supported changing it. The FHA did eventually relent and dropped the 60% funding requirement, replacing it with a 10% annual funding requirement, which in our opinion is essentially a meaningless requirement that is not based on any logical position. It was simply a political posturing position. This action essentially promoted fiscal irresponsibility on the part of associations.

100.40 - Buildings and their components deteriorate over time as part of a normal process. Many buildings constructed in the 1960s, 1970s, and 1980s are now starting to reach that point where infrastructure components begin to reach their maximum age. We anticipate that a great many more associations will be forced into significant special assessments over the coming few decades as they are forced to replace components for which they never established reserves.

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100.41 - The frequency of the on-site analysis is often dependent upon the age of the project, the number of significant components which will be subject to major repair or replacement within a relatively short period of time, and the day-to-day operational maintenance plan of the Association. New projects generally have very few reserve expenditures in early years, so timing of the reserve studies (including an on-site analysis) is often not a critical factor. Older projects may be subject to a far larger number of expenditures for the major repairs and replacement of common area elements. This may require that the on-site analysis should be spaced in shorter intervals than for newer projects.

100.42 - The component analysis can take place as part of the on-site analysis, but is generally performed at a later date. Often, the age, useful life, date placed in service, and cost of components is not known at the time the on-site analysis is conducted. Therefore, this work is done as part of the component analysis.

100.43 - Once the component data has been compiled, the next step is to perform the financial analysis. The individual performing it must determine the amount of the Association's funds that are designated as reserve funds, the inflation or interest rates that are to be used, whether or not taxes will be paid from the reserve fund, and how much money is required to be set aside each year in reserves.

100.44 - Accuracy of the future reserve expenditures is the first major step. After the list of reserve components is compiled, it is necessary to review estimated future reserve expenditures. This is the time to challenge the initial list prepared to make sure that assumptions are correct.

100.45 - The next step is to build a stream of reserve revenues sufficient to (at a minimum) cover the estimated future reserve expenditures. The individual(s) responsible should make decisions first regarding inclusion of inflation, investment income, and income taxes. The discussion of inclusion of inflation, and investment income, is included in Chapters 3 and 7. Funding goals are discussed in Chapter 7.

100.46 - It is at this point in the reserve study process that the reserve practitioner begins to form the 30-year funding plan. Our example above required no substantial modification. Most plans do, however. The funding plan also depends on funding goals established by the Association. To meet whatever goal is established, the reserve practitioner must consider all cash inflows (reserve fund revenues) from all sources. Generally, these consist of member assessments, investment income, and perhaps loans (if needed) to cover the estimated reserve expenditures.

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100.47 - Funding goals are discussed in depth at Chapter 7. Funding goals generally are considered to consist of either baseline funding, full funding, or threshold funding.

100.48 - **Baseline funding** is generally considered to mean establishing a funding plan which keeps the minimum balance above zero.

Exhibit 1-1 (Full Funding Plan)

Fiscal Year End	Ending Balance	Ideal Balance	Percent Funded
12/31/15	\$ 114,347	\$ 180,632	63.3%
12/31/16	175,268	222,388	78.8%
12/31/17	231,304	260,446	88.8%
12/31/18	292,970	305,367	95.9%
12/31/19	349,542	346,470	100.9%
12/31/20	350,663	345,139	101.6%
12/31/21	395,341	388,469	101.8%
12/31/22	446,014	439,274	101.5%
12/31/23	491,067	485,987	101.0%
12/31/24	542,351	540,513	100.3%
12/31/25	565,502	564,338	100.2%
12/31/26	622,838	622,268	100.1%
12/31/27	675,714	675,824	100.0%
12/31/28	737,025	737,902	99.9%
12/31/29	793,737	795,464	99.8%
12/31/30	42,419	45,513	93.2%
12/31/31	90,431	90,839	99.6%
12/31/32	146,269	145,140	100.8%
12/31/33	195,758	194,288	100.8%
12/31/34	253,378	252,817	100.2%
12/31/35	306,068	306,022	100.0%
12/31/36	368,991	369,033	100.0%
12/31/37	426,895	426,546	100.1%
12/31/38	495,563	494,307	100.3%
12/31/39	559,128	556,390	100.5%
12/31/40	559,217	555,207	100.7%
12/31/41	625,625	620,643	100.8%
12/31/42	702,396	697,244	100.7%
12/31/43	772,253	767,759	100.6%
12/31/44	852,900	849,942	100.3%

100.49 - In our opinion, baseline funding plans are a dangerous option because any variation in estimated cost can have disastrous results. They simply leave no margin for error, and are too often dependent on special assessments to make the plan work.

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Exhibit 1-2 (Threshold Funding Plan)

Fiscal Year End	Ending Balance	Ideal Balance	Percent Funded
12/31/15	\$ 37,901	\$ 180,632	21.0%
12/31/16	74,257	222,388	33.4%
12/31/17	105,573	260,446	40.5%
12/31/18	142,361	305,367	46.6%
12/31/19	173,896	346,470	50.2%
12/31/20	161,860	345,139	46.9%
12/31/21	193,296	388,469	49.8%
12/31/22	230,643	439,274	52.5%
12/31/23	262,285	485,987	54.0%
12/31/24	300,072	540,513	55.5%
12/31/25	305,627	564,338	54.2%
12/31/26	343,690	622,268	55.2%
12/31/27	375,559	675,824	55.6%
12/31/28	414,068	737,902	56.1%
12/31/29	446,123	795,464	56.1%
12/31/30	25,647	45,513	56.4%
12/31/31	54,953	90,839	60.5%
12/31/32	91,419	145,140	63.0%
12/31/33	120,860	194,288	62.2%
12/31/34	157,745	252,817	62.4%
12/31/35	187,314	306,022	61.2%
12/31/36	224,623	369,033	60.9%
12/31/37	254,310	426,546	59.6%
12/31/38	292,046	494,307	59.1%
12/31/39	321,843	556,390	57.8%
12/31/40	286,578	555,207	51.6%
12/31/41	316,007	620,643	50.9%
12/31/42	354,137	697,244	50.8%
12/31/43	383,650	767,759	50.0%
12/31/44	422,210	849,942	49.7%

100.50 - **Full funding** in CAI terminology is generally considered to mean establishing a funding plan which keeps the Association at or near 100% funded at all times. Exhibit 1-1 presents an example of what a full funding plan might look like. (Note that the percent funded amounts are at or near 100% for all but the first few years.)

100.51 - **Threshold funding** is generally considered to mean establishing a specific dollar amount or percentage funded that is greater than baseline funding but less than full funding. Exhibit 1-2 presents an example of what a threshold funding plan might look like. (Note that the percent funded amounts are at or near 50% for all but the first few years, which represents the established goal that was set at a percentage amount rather than a specific dollar amount.)

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100.52 - There is no specific threshold funding plan that can be labeled as the “right” plan. Furthermore, the definition of “threshold” simply means it is somewhere above the baseline plan and generally below a fully funded plan. Therefore there are an infinite number of possible threshold funding plans. The example in Exhibit 1-1 was simply selected as a random possible funding plan.

100.53 - More reserve studies are performed in states that have adopted statutes establishing reserve study requirements than in states that do not have such requirements. Since most associations will try to comply with state statutes, it makes sense that more reserve studies are performed in states that have such statutes. However, acceptance of a reserve fund as being a good business practice is also widespread throughout the country, so it’s reasonable to expect that a significant percentage of associations would still opt to perform a reserve study for that reason alone.

100.54 - In some states, the general consensus appears to be that a reserve study is more of a nuisance than anything else. It's not that the associations in these states don't budget for reserve projects; they do. They just don't generally have a formal reserve study prepared. This means they don't have a formal maintenance plan and really have no idea how well-prepared or not they are for future expenditures.

100.55 - So what is the potential impact of the lack of a formal reserve study? It's a known fact that at least some level of inflation is still with us, costs are increasing, and common area components are deteriorating. Many associations choose to simply defer major expenditures until funds can be accumulated. The danger of this approach is that the cost may grow exponentially until the deterioration reaches a tipping point, requiring complete replacement of components instead of simply performing major repairs. The deferral approach generally results in much higher costs overall. For example, painting siding is a relatively minor cost when compared to complete replacement of the siding itself. However, complete replacement of siding is the likely result if scheduled painting maintenance activities are not performed.

100.56 - Consider how the reserve situation may look from a prospective purchaser's point of view. A knowledgeable prospective purchaser will want to see a well-funded reserve account as well as a reserve study to back it up, so he or she can have some idea of what the future may hold in store. Unfortunately, only a small percentage of prospective purchasers are savvy enough to request and understand this information. But those who are informed would be inclined to gravitate towards associations that do have a reserve plan and have set aside funds for future major repairs and replacements.

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100.57 - It is the Association's responsibility to make sure that funds are available for association operations. When it comes to the operating budget, this is a somewhat easier task, as budget items repeat annually and each year serves as a potential benchmark for what the next year should look like.

100.58 - The reserve fund, on the other hand, can look completely different from year to year. In the early years, an Association may accumulate funds without making any expenditures at all. It is simply accumulating funds for known future expenditures. It becomes somewhat more difficult to budget for these types of expenditures. The reserve study is the tool that allows an Association to create this budget.

100.59 - Many argue that it is a waste to accumulate funds when no money is needed on an immediate basis. However, when one considers this advance funding as an equitable funding approach, it takes on a whole different perspective. Setting aside the appropriate funds even when expenditures will not be needed until years in the future simply means that those individuals who are “using up” the common area components are also paying for them. (The flip side of this argument, of course, is that advance funding places a burden on struggling current owners who may not even be members of the Association when that large expenditure, such as roof replacement, is actually required. In other words, why not let the new buyer pay for that roof?)

100.60 - Large reserve projects have to be planned for several years in advance if associations wish to avoid a large special assessment. What we have observed is that even though the managers may recommend preparation of a reserve study, boards of directors sometimes simply don't want to take this action. It appears that their attitude is that what they don't know, won't hurt them.

100.61 - As budget season approaches, many associations are focusing on their reserve studies for two reasons only: (1) it is required, either by state statutes or governing documents; and (2) they want to make sure that the reserve assessment fits within the desired overall budget of the Association.

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100.62 – While these reasons are definitely important, they represent only the short-term benefits of a reserve study. The long-range benefits include many more items. For many associations, maintenance of common areas is the largest single cost of the Association. It is not often considered as such because it typically is broken into several different cost categories within the Association budget, such as painting, pool maintenance, landscape maintenance, roofing repairs, paving, fencing, and other categories. When considered together as maintenance activities, however, these items often represent the largest single cost.

100.63 - The reserve study is one factor that helps to identify, quantify, and attempt to control such costs. Another major factor is the Association's maintenance plan. Many people have taken the position that the Association's maintenance plan IS the reserve study, or is defined by the reserve study. The authors disagree, as a comprehensive maintenance plan must also include operating maintenance activities. Those operating maintenance activities often determine the resulting reserve maintenance activities applicable to the same common area components. Therefore, the reserve study should be a *reflection* of the maintenance plan, not the *creation* of the maintenance plan.

100.64 - Most associations have not yet developed internal procedures to the point that they have established formal maintenance plans or formal reserve policies. These should be viewed as the planning process from which the reserve study is ultimately derived. Because this advance planning does not exist in many cases, most reserve studies today are used for more purposes than would be considered normal in the above-described setting.

100.65 - The reserve study will always be used to fulfill the legal/fiduciary responsibility of the board and the Association. It is also used to establish an appropriate capital reserve budget. Performed regularly, and assuming that adequate initial funding exists, the reserve study report includes a future funding projection, normally for a 30-year period, that can be used to achieve stable and predictable assessments and avoid special assessments. In addition, many associations attempt to assure a "fair" reserve contribution by all owners. This is usually referred to as "full funding" or "100 percent funding." The concept behind this funding model is that as the useful life of components is "used up" or "depreciated," those members receiving the benefit of that useful life are also contributing an equal amount to the planned replacement of the "used up" or "fully depreciated" components. Other associations opt for less than full funding under the theory that as long as you never go below zero in the reserve account, you have adequately funded reserves.

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100.66 - The reserve study depends upon a comprehensive component inventory of the major components of the Association. Creating this inventory is another benefit of the reserve study. The identification and evaluation of common area components can also result in the improvement of maintenance procedures, or an improvement in energy use practices. Where no formal maintenance plan exists, the reserve study also allows the Association to identify and plan for property repairs or replacements.

100.67 - The reserve study can play a big part in properly maintaining association common areas. This directly affects property values. A good plan will preserve and/or enhance property values. A poor or nonexistent plan will have the opposite effect. Given budget pressures, and particularly in today's depressed property value market, many associations are not increasing their reserve assessments annually. However, inflation IS affecting your future maintenance obligations annually, and the longer that adequate reserve funding is ignored, the greater the gap will be between funds on hand compared to maintenance obligations. During a 20-plus-year career of preparing reserve studies, we have seen the unfortunate effects of inadequate funding, which are either significant special assessments or deferral of necessary maintenance projects. The short-term thinking of keeping reserve assessments low can cause eventual repair/replacement costs to dramatically increase. We have seen the failure to increase monthly reserve assessments by as little as \$2 per month per owner and performing necessary maintenance result in costs increasing by tens of thousands of dollars. The cost benefit relationship of proper maintenance is well established. Attempting to save "pennies" in budgets can result in large decreases in property values due to inadequate maintenance.

100.68 - The reserve study is also a useful tool for prospective buyers. While too few buyers are educated as to the values of a reserve study, or even understand it, educated buyers (and there are more of them every day) will want to see a reserve study before they buy so that they can evaluate the funding status of the Association's reserves. Although FHA has relaxed its reserve study requirements, more lenders are becoming savvy to the value of a reserve study and are requiring reserve studies before they will lend. We believe we will see an increasing trend of lenders requiring reserve studies. Another benefit of the reserve study is that it may help protect the Association against litigation. While this is a recent development that we hope does not represent a growing trend, we have seen situations (and in fact have testified as experts) where litigation against associations has resulted from inadequate reserve studies or failure to perform a reserve study.

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100.69 - While the above describes the various benefits of a reserve study, the matter still boils down to the fact that it is just common sense to have a reserve study prepared. Not having a reserve study is like starting a trip with no plan and no destination in mind. You may end up in a nice place, or you may not. It's better to have an idea where you're going. It's better to know how you intend to get there. It's better to plan.

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201 - Conceptual Framework of Reserves

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200.1 - Although common-interest developments have existed in the USA for more than a century, it wasn't until the 1960s that the concept of planned developments and condominium associations became a major part of the housing market. That portion of the housing market has continued to grow to the point that there are now estimated to be some 350,000 associations nationwide that account for nearly 20% of the entire housing market.

200.2 – It took the community association industry far too long to discover and address the issue of reserves – a long-term maintenance and replacement funding plan for the common areas. In fact, it took approximately two decades (into the mid-1980s) before the industry realized that the limited, haphazard approach to reserves within the industry wasn't working well. A more structured approach to reserves began to be developed in the early 1980s. It was at about this same time that the American Institute of CPAs (AICPA) began development of their industry audit guide for Common Interest Realty Associations (CIRAs). The state of California, always a leader but not always in a good way, introduced civil code section 1725 in 1983. (This later morphed into code section 1365 as part of California's Davis-Stirling Common Interest Development Act, and later still into section 5500 of the Act.) The reserve study section of the AICPA Guide and California law had unfortunate parallels and were developed at approximately the same time, heavily influenced by the same people.

200.3 - Personal computers were just coming into broad use in the mid-1980s, but spreadsheets still did not effectively exist for most people. Common area reserve items were tracked manually on columnar pads using a pencil, calculator, and eraser. The most basic reserve item data was collected: description, cost, estimated useful life, and remaining life. This data was entered on the pad and then a basic assumption was made as the beginning balance of reserve funds was allocated between the individual reserve items.

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200.4 - Next, a straight-line calculation was made. Taking the cost of the individual reserve item and subtracting its allocated beginning balance of reserve funds produced the unfunded balance that would be needed at the scheduled time of the maintenance or replacement. The unfunded balance was then divided by the remaining life (years) to calculate the reserve contribution for this item.

200.5 – These steps were repeated for all the reserve items and the contribution from each reserve item was summed, giving a total contribution. This simple calculation, accepted by all, is the basis of what is today known as the “component method” or “straight line method” of calculating reserves. In a later chapter, we will explain why, in the authors’ opinion, this method should never be used unless you have only a single component.

200.6 - This method was obviously a tedious task to perform with just a pencil, a calculator, and an eraser. By the mid-1980s, however, the personal computer and the first spreadsheets were finally available to more people, making this process much easier and faster. It is probably safe to say that a majority of the reserve planners had stepped up to this new technology by the end of the 1980s. This component method became the standard accepted calculation method, but because it was the standard, it didn’t even have a name.

200.7 - In 1989, the concept of a cash flow analysis was introduced to the reserve study industry in the first commercially available reserve study software. It used the same data that had been derived in the past, but went a step further in not only taking into account when the next scheduled time of maintenance or replacement would be, but also factoring in when the recurring maintenance or replacements would occur. This calculation for projected maintenance or replacement expenditures was performed for a desired number of years. (At the end of the 1980s, the length of time was usually for 20 to 30 years.

200.8 - Based on projected expenditures for the 30 years, and knowing the beginning balance of reserve funds as well as inflation and interest rates, a cash flow assessment level could be determined using “what if” scenarios. As an example, we could ask the following: if we enter this initial amount for the contribution in the first year and in the following years, will there be sufficient reserve funds over the next 30 years for the projected expenditures, which would also project a continued positive balance of reserve funds?

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200.9 - Hence, this “Cash Flow” method became a more sophisticated alternate method of calculating the reserve contribution. To differentiate the two dramatically different methods, the old method calculated at an individual component level became known the “Component Funding” method, as described above. The biggest difference between these two methods is that the Component Funding method requires an allocation of the beginning balance of reserve funds between the individual reserve components, while the Cash Flow method does not.

200.10 - After a comparative analysis of these two methods with the help of spreadsheets, some previously unnoticed problems were found with the Component Funding method:

- 1) It only calculated the contribution for the first year.
- 2) If you changed (or re-shuffled) the allocation of the beginning balance of reserve funds between the individual reserve items, a different required contribution would be calculated each time.
- 3) The initial calculations did not take into account interest earned on reserve funds or inflation on reserve items.

200.11 - When the interest earned on reserve funds and inflation on reserve items was acknowledged, the Component Funding method spreadsheet was adapted to try to take these into account. But the deficiencies of only calculating the contribution for the first year and coming up with differing assessments based on cash allocation still remained.

200.12 – “Percent Funding” was developed as an evolution of the Component Funding method, and many considered it to be another reserve funding contribution calculation method. Percent Funding is not truly a contribution calculation method, but is simply an evaluation or a measurement of a reserve funding plan. As with the Component Funding method, the Percent Funded amount was also produced on a straight-line calculation as follows:

200.13 - If a reserve item has a 10-year estimated useful life and a current cost of \$10,000 and has been in service for 4 years, then to be “100% Funded”, \$4,000 should exist in reserve funds for this reserve item. Percent Funding is easily presented for both the Component and Cash Flow funding calculation methods. (See Chapter 8 on “Understanding Percent Funded.” It is actually far more complex than described above because of the different methods that have evolved to make this calculation.)

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200.14 - For the Component Funding method that presents each reserve item with its own reserve fund balance, the “Percent Funded” is calculated by dividing the reserve fund balance by the 100% funded calculated number as presented above.

200.15 - For the Cash Flow method, the 100% funded amount is calculated for the aggregate cash flow stream, not for any individual component. The beginning balance of reserve funds is then divided by the 100% funded calculated amount. The main difference between these two presentations is that the Cash Flow presentation will continue to present the 100% funded amount and percentage for the future desired number of years, whereas Component Funding can only present the first year, unless assumptions are made regarding allocation of reserve funds to each component.

201 - Conceptual Framework of Reserves

201.1 - The reserve study industry is a young industry that is still defining itself. To understand the dynamics of the reserve study industry, it is necessary to look at the various organizations within the larger community association industry, and their competing visions for reserve studies:

- The Community Associations Institute (CAI) is the USA’s largest community association industry trade organization, and serves a membership that includes all stakeholders in the industry. CAI, through its reserve study committee, established its National Reserve Study Standards in 1998, and created a designation program offering the Reserve Specialist (RS) designation shortly thereafter.
- The Association of Professional Reserve Analysts (APRA) was created as a trade organization serving solely its reserve practitioner members. APRA was created shortly after CAI adopted its standards and designation program by a group of reserve practitioners who were dissatisfied with the CAI – RS program. APRA created its own Reserve Study Standards, which closely mirror CAI’s standards, also in the late 1990s. APRA’s standards were modified in 2012, but are still substantially similar to CAI’s standards. APRA offers a designation program, the Professional Reserve Analyst (PRA), for its members.

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- The International Capital Budgeting Institute (ICBI) is a USA-based educational organization serving the USA and international community. ICBI was created in 2014 by a group of individuals from the larger community association industry who believed the CAI and APRA standards did not sufficiently address significant issues relevant to reserve studies. Also, international members, being much newer to the field of reserve studies, and without having been influenced by the industry history existing in the USA, saw an opportunity for a fresh approach. In observing reserve studies practices in the USA, they were reluctant to adopt the standards of CAI or APRA, particularly the concept of percent funded. They perceived these standards as not being sufficient, relevant, or in some cases, appropriate to the needs of their respective countries. ICBI differs from CAI and APRA in that it deals with standards only, is not a trade organization, and does not offer a designation program for reserve practitioners. ICBI also collaborates with other organizations that depend upon independent standards for reserve studies.
- Associated Reserve Planners (ARP) is an international trade organization created in 2012 to represent reserve practitioners outside the USA. A U.S. chapter was established in 2014. ARP has adopted the ICBI standards, and does not offer a designation program to its members.
- The Association Specialists Certification Board (ASCB) is an independent credentialing organization that was formed in 2015 to establish credentials for various association specialist service providers. One of the credentials being developed by ASCB is the Professional Reserve Consultant (PRC) designation. The PRC designation adheres to the ICBI standards, and requires completion of a course of study on all aspects of reserve studies, passing of a comprehensive examination, and continuing education.

201.2 - Each of the above organizations has its own vision for the reserve study industry. These are competing rather than compatible visions, at least to some degree. CAI and APRA favor an individualistic approach to calculations and reporting, while ICBI and ARP favor a more consistent, structured approach in reporting, calculations, and definitions of what should be included in the reserve study. In general, this partition of the reserve study industry can be characterized as the younger, progressive crowd against the older establishment guard. Time will tell which vision will prevail. The authors clearly support the ICBI approach.

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201.3 - CAI and APRA standards were created in 1997–1998 solely by reserve practitioners (primarily engineers), without any outside input. The individuals involved were all USA-based as at that time, there effectively was no reserve study industry outside the USA. The ICBI standards development group, in contrast, included individuals from six countries that included a broad cross-section of community association industry stakeholders rather than being limited to just reserve practitioners.

201.4 - Disclosure – The authors serve on the ICBI board of directors and believe the ICBI standards to be the most appropriate standards for reserve studies.

201.5 - ICBI was formed in 2014 to establish international standards for the preparation and reporting of long-term capital budgets. The first project at ICBI was to establish standards for reserve studies, which are a specialized form of long-term capital budgets.

201.6 - The ICBI approach to this project was to gather input from all types of stakeholders in the industry – both those who prepare and those who rely upon reserve studies. ICBI desired representation of the international community, so their standards committee consisted of 16 individuals from six countries in order to achieve that goal. The ICBI standards committee included representatives from the USA, Canada, Mexico, Dubai, Australia, and Kenya. The technical background of the individuals comprising the committee, some of whom represent multiple technical backgrounds, included contractors, CPAs, developers, reserve specialists, professional reserve analysts, managers, architects, engineers, software developers, attorneys, bankers, facilities managers, and project managers.

201.7 - The ICBI standards committee evaluated and considered existing standards of CAI, APRA, the National Society of Professional Engineers (NSPE), the American Institute of Architects (AIA), and the American Institute of CPAs (AICPA) during the development phase, those being the organizations most likely to have an impact on the process. The existing CAI and APRA reserve study standards are effectively constructed as a single-level set of rules and definitions. ICBI instead sought a structured, multi-level approach, more in line with standards of other organizations, that factors in both unchanging principles and expandable interpretations.

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201.8 - The result was to establish a set of basic conceptual principles separate from performance standards. The ICBI's guiding philosophy was that broad principles and standards should be established that reflect basic concepts that are unlikely to require change over time, and that interpretations of those principles and standards would be issued to both expand and clarify the broad principles and standards. Performance standards cannot reasonably exist without first establishing basic, underlying, conceptual principles. The results of this process are reflected in the ICBI Reserve Study Professional Standards, consisting of:

- 1) Generally Accepted Reserve Study Principles
- 2) Interpretations of Generally Accepted Reserve Study Principles
- 3) Generally Accepted Reserve Study Standards
- 4) Interpretations of Generally Accepted Reserve Study Standards

201.9 - Chapter 4 on reserve study standards contains a comparison chart of standards for the three organizations that have adopted standards. This chart demonstrates the significant differences in approach that was used during the standards-setting process.

201.10 - While there are numerous differences in both details and expression, a big-picture understanding shows that the primary differences of ICBI standards compared to those of CAI and APRA are best summarized in four broad categories: (1) a more comprehensive definition of components; (2) a more definitive description of service levels; (3) a requirement for consistent calculations; and (4) a consistent and uniform approach to reporting on reserve studies.

201.11 - A more comprehensive definition of components – The ICBI standards expand and clarify the definition of components to reflect the true maintenance responsibility of the Association. This results in greater consistency and reliability in reserve studies. ICBI believed that the CAI and APRA standards allow (too) wide latitude in the determination of what is considered a component that should be included in a reserve study. This has routinely resulted in (a) too many immaterial items being included in reserve studies; (b) non-maintenance-related expenditures being included in reserve studies; and (c) omission of significant components with no disclosure that the items are omitted.

201.12 - A more definitive description of service levels – ICBI provides for three service levels: independent study, reserve management plan (collaborating with the association), and consulting. CAI and APRA standards do not expressly state a service level, only types of reports (full study, update with site visit, and update without site visit). The apparent assumption is that the reserve study is an “independent study.”

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201.13 - A requirement for consistent calculations – ICBI standards establish requirements for consistent calculation methods, software capable of making accurate calculations, and consistent terminology definitions. CAI and APRA standards fail to address calculations standards at all, which has resulted in a wide disparity in (a) application of inflation to future periods and projections of future expenditures; (b) calculations of percent funded; and (c) calculations of one-time expenditures. This has also allowed the use of software that, in some cases, is either incapable of making accurate calculations or inflexible in making both regulatory and budget level calculations. Another side effect of this is the use of imprecise definitions so that individuals use the same terms for different meanings.

201.14 - A consistent and uniform approach to reporting on reserve studies – ICBI standards require specific, consistent reporting formats on a summary basis, generally resulting in a report of no more than 20 pages. Supplemental schedules providing the detail are generally separated from the basic report. CAI and APRA require certain report elements, but do not require specific format of reports. This has resulted in (1) no “preparer” report on the financial documents; (2) a wide disparity of reporting practices; (3) failure to include adequate disclosures; and (4) routine inclusion of content not meaningful to the reserve study report. This lack of standardization of reports is a significant issue for the industry. This is evidenced by instructions in both CAI and APRA applications that require the applicant to identify exactly where in their report the elements appear to comply with their standards; otherwise, the elements often cannot be found.

201.15 - The CAI and APRA standards did not create a small set of broad standards; instead, they created a large list of rules (do's and don'ts) that really should exist as detailed interpretations of broader standards. It's what is missing from the CAI and APRA standards that prompted the formation of ICBI and the establishment of standards that included such basic concepts as:

- 1) To whom the report belongs (association or preparer).
- 2) Identifying the level of responsibility the preparer is taking with respect to the report.
- 3) The preparer's opinion with respect to the report (fairly stated or not).
- 4) The training, education, and competence required of the reserve analyst.
- 5) Disclosure of the basic assumptions made as part of the study upon which calculations and funding projection are based.
- 6) Disclosure of any significant components omitted from the report.
- 7) Scope of the study or level of detail of component data.
- 8) Whether the reserve study represents the creation of a long-term maintenance plan, or if it is the reflection of a long-term maintenance plan.
- 9) Extended service that may be provided as part of or in addition to a reserve study.

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201.16 – The fact that such basic issues were not addressed in the CAI and APRA standards is an indication of the lack of detailed, long-term thinking involved in the creation of those standards. Further, the standards clearly contemplate only one TYPE of engagement, which is that a reserve practitioner is engaged to prepare a paper report on some periodic basis. The standards fail to contemplate other types of services, such as (a) a reserve specialist collaborating with association staff in the preparation of their association's study; (b) using the work of association maintenance experts who maintain their own reserve database as the basis for a report; (c) reliance on association representations in the course of the study; and (d) using a reserve study as part of a comprehensive maintenance plan.

201.17 - The community association industry approach to reserve studies is remarkably outdated. CAI's "best practices" recommendation is that a reserve study, including a "site visit", should be conducted periodically, and should be updated periodically. It is also obvious that the intent was to create a paper-based reserve study report. These "best practices" were developed some time after the 1998 standards were adopted, but even had they been adopted in 1998, were already technologically outdated.

201.18 - The authors believe, and have been stating for many years, that age and condition of the property should be the primary factors that dictate when an on-site analysis (meaning an analysis, not a "visit") should be performed. We also feel strongly that associations should have a software tool that allows them to keep their reserve plan updated. This should be a dynamic system, not a "once-every-three-years, let's-take-a-look-at-it-and-see-what-we-think" approach.

201.19 - Software is the key limiting factor that has prevented this dynamic approach from becoming the *de facto* approach. Reserve study software has been commercially available since 1989, but because of the "individualistic" approach adopted in both CAI's and APRA's standards, the widespread use of commercial software was avoided. Accordingly, the benefits and standardization that would have resulted from its use did not gain traction at that time. The reserve practitioners who developed the CAI standards had each already developed their own "in-house" spreadsheet approaches to producing paper reserve study reports. These spreadsheets were not capable of being developed into commercial products that could be used by others outside of their own companies. Each reserve study company had also developed its own reporting formats and calculations. The reserve practitioners who developed the standards did not want to pay for commercial software that was capable of making correct calculations, and did not want to standardize reporting formats and give up their own proprietary report formats.

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So instead, they designed standards that supported their existing way of doing business, at the expense of failing to create standards that would improve consistency and reliability of financial reporting of reserve studies for the community association industry.

201.20 - The authors, key supporters of ICBI, have long disagreed with the status quo, and for years have attempted to implement change in the current approach to reserve studies, with the simple goal of improving the consistency and reliability of financial reporting of reserve studies for the community association industry. It was after years of continual refusal to change by the CAI and APRA reserve study practitioners, and after one specific, enlightening event that occurred in 2014, that ICBI was formed by a group of individuals who recognized the inadequacy of the status quo.

201.21 - The authors have long supported using a dynamic approach in the reserve study process, wherein we make our reserve study software available to our association clients so that they can keep their reserve plan updated. This approach also caused us to realize that there are two separate groups within the community association industry that approach reserve studies in a completely different manner.

201.22 - The first group consists primarily of associations managed by management companies whose service of choice is the paper-based reserve study reports that have been the CAI and APRA approach for the last 20 years. Many of these companies, however, do also complain about the lack of consistency in both reserve study reports and differences in components. We believe that many of these companies will really appreciate the consistency of reserve study reporting once they begin to become aware of the standardized ICBI reporting formats and consistency of approach to components.

201.23 - One significant reason that many management companies won't consider a dynamic software approach is that it would cause more work for the management company, and they're already stressed out with heavy workloads and association clients demanding very competitive management fees. To them, their resistance comes down to a matter of profitability, the issue of having to learn a few new skills, and finding time in an already busy schedule to enter even the very few reserve transactions that normally occur in associations on an annual basis.

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201.24 - There are a few enlightened management companies that realize there is very little effort required to keep a dynamic system updated, and that the resulting information places the management company in a much more knowledgeable position in which they are better able to advise the Association. Having this software also makes the management company more capable because it has the information to be able to answer questions regarding reserves. We believe these management companies are the future of the community association industry. Monies spent on operating and reserve maintenance activities are typically the largest single expense category for most associations, yet most associations and management companies do virtually nothing to track these significant expenditures. The dynamic approach resolves this disconnect in the information process.

201.25 - The second group consists primarily of large-scale associations that have both the interest in and staff available to operate a dynamic reserve management plan. These associations are generally concerned less with budgetary aspects than with gaining control over their largest expenditures, and being able to manage the process. It is an operational issue rather than a budgetary issue for them.

201.26 - The authors believe that community industry organizations should be looking forward and guiding associations' future practices, not promoting outdated, paper-based reports simply because it is comfortable, and because that is what the majority of reserve study companies are capable of doing. They should be looking towards the highest and best standards rather than relying on 20-year-old standards that were inadequate and outdated even when adopted.

201.27 - While many reserve practitioners can produce competent paper reserve study reports, only a few can offer software. A very small number of reserve study companies have begun to offer their association clients the ability to access their reserve study data via internet-based systems. Our limited impression of these systems is that they are effectively spreadsheets on the web, not really software programs. Further, none of them are certified by ICBI as being compliant with calculation and report presentation standards. At the time of this writing, only two products available in the USA meet the ICBI standard: Facilities 7 (www.facilities7.com) and PRA System (www.prasystem.com).

201.28 - Terminology issues started when the CAI and APRA standards were initially developed, and continue to this day. Some of the terms that are poorly or inappropriately defined are: Ideal Balance, Theoretical Ideal Balance, Fully Funded, 100% Funded, Baseline Funding, Threshold Funding, Full Funding, Statutory Funding, Percent Funding, and the list goes on.

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201.29 - If these terms were given to five reserve study practitioners, they would not be able to come up with a consensus of what these terms mean nor how they are related. Some would say that Ideal Balance, Fully Funded and 100% Funded all mean the same thing, while some would say they don't. Welcome to reserve study politics.

201.30 - Several states have developed legislative reserve study requirements: California, Delaware, Florida, Hawaii, Nevada, and Washington. None are comparable. Each state has gone their own way and determined their own criteria of requiring what calculation method should be used, what should be presented in a reserve study report, and what disclosures must be made to members.

201.31 - We understand why states have taken this action; when legislators looked to the existing National Reserve Study Standards, they recognized them as being inadequate, therefore forcing the legislators to create their own requirements. And who did they use as advisors in this process? The same individuals who created the National Reserve Study Standards - individuals who had their own biases and agendas. The result for each state has been poorly constructed legislation that, in some cases, almost prevents associations from doing what sound reserve study principles guide them to do.

201.32 - As more and more states have or are preparing statutory reserve study reporting requirements, they are looking at what other states have done and thus the domino effect of confusion spreads. Organizations representing the community association industry have had little impact in positively addressing these issues, because the only thing they have to offer is the inadequate National Reserve Study Standards.

201.33 - There has been some attempt by federal agencies such as FHA to establish minimum reserve study requirements, but there has been nothing yet that will set a definitive, consistent, regulatory requirement.

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300 - Introduction

300.1 - There are hundreds of thousands of people who work or volunteer in the community association industry, and probably just as many theories about reserve studies. Is this an exaggeration? Not really, because everybody seems to have his or her own idea or expectation about what a reserve study is, or should be. Each reserve practitioner tends to have a different opinion, and when you add in the expectations of managers and volunteer board members, the number of different theories grows exponentially.

300.2 – The underlying reasons for this discrepancy have been the absence of comprehensive standards, the lack of education, and the continued use of inaccurate and confusing terminology. As will be discussed in chapter 4, the first comprehensive reserve study standards were only issued in early 2015 by the International Capital Budgeting Institute (ICBI). Prior to that, the only guidance was “National Reserve Study Standards,” which allow reserve study companies to prepare reserve studies pretty much any way they want. While there is consensus on some issues, there is still disagreement on others, and that means reserve studies created by different practitioners may reflect significant differences.

300.3 – The theories on the preparation of and reporting on reserve studies naturally involve all the factors comprising the reserve study, including type and scope of reserve study, calculation methods, funding goals and plans, and the reporting of reserve study results. In short, every aspect of preparation of reserve studies must be considered. Because each of these factors is considered in depth in a separate chapter, this chapter will focus only on the larger conceptual issues and on how the various factors interact to affect the final reserve study.

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301 - What is a Reserve Study?

301.1 – The most fundamental issue to address is, what exactly is a reserve study? While some may express surprise at this basic question, it is necessary because since everybody has an idea as to what the answer is, and many of those ideas are different, some ideas must be incorrect. Many people confuse maintenance plans, engineering studies, or a complete Project Condition Assessment (PCA) with a reserve study. Others have the right idea: the reserve study is a budget.

301.2 – The reserve study is a specialized budget. It differs from the operating budget, which is generally limited to a one-year projection of next year's operating expenses. The reserve study is a specialized capital budget. In the community association world, the capital budget is limited to future major repairs and replacements of existing association common areas. By definition, capital improvements are excluded, as they are not yet existing common areas. The reserve study also contemplates a funding plan to provide the monies to pay for those future expenditures.

301.3 - In contrast, in the commercial world a capital budget generally refers to projected future capital expenditures, which include both major repairs and replacements to existing facilities and equipment, and capital improvements for new acquisitions. Such a budget does not always envision modeling a cash flow plan to pay for those expenses, however.

301.4 – The reserve study is based on a site analysis of components. That site analysis is limited in scope to a “competent visual observation” in which no destructive testing is performed. The limited scope of this service is what differentiates a reserve study from the other services with which it is often confused.

301.5 – A maintenance plan differs from a reserve study in that it focuses on both day-to-day operating maintenance activities and also long-term major repairs and replacements. The maintenance plan exists at the individual component level, and provides a detailed plan of maintenance activities. These activities are not equated to a cost factor, as the entire focus of this plan is on activities, not costs. In contrast, the reserve study is the financial reflection of the long-term portion of the maintenance plan.

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301.6 – An engineering study or engineering plan differs from a reserve study in that it is an evaluation of specific individual components, and does not necessarily include all components. The engineering study also normally recommends corrective maintenance activities, which could include both day-to-day operational and long-term major repairs and replacements. These activities are generally not equated to a cost factor, as the primary focus of the study is on activities, not costs.

301.7 – A number of engineering companies also perform reserve studies. An engineering company's reserve study work product is often referred to as an engineering study. This terminology causes an unfortunate confusion. The term "engineering study" implies a far more detailed level of work than was ever contemplated in a reserve study. In specifying by name the type of individual performing the study, it also implies a level of competence that is inappropriate, as one does not have to be an engineer to perform a reserve study. Use of the term "engineering study" when actually referring to a reserve study occurs more frequently in the Northeast than in any other part of the country.

301.8 - Engineers clearly have the necessary technical skills to evaluate and perform the component condition assessment that is part of the physical analysis of a reserve study. However, that engineering skill does not automatically mean they also have the valuation and financial modeling skills necessary for preparation of a reserve study. We see evidence in that in a number of reserve study reports from engineering companies.

301.9 – A PCA is also very different from a reserve study. The PCA is normally performed by an architect or engineer and examines the entire project, including the structural components that are generally beyond the scope of a reserve study. The purpose of a PCA is to evaluate an entire project, with the end result being a report on the physical analysis. The emphasis is on the current physical analysis, not on a budgetary projection for future years.

301.10 - Capital improvements are typically not included in a reserve study. A capital improvement, as the term is used within the context of a reserve study, represents the addition of a new component to association common areas. Therefore, it does not meet the definition of a major repair or replacement, which refers only to existing components. Once the new capital improvement component has been placed in service, it should be considered in future reserve studies for major repairs and replacements, as it will then be an existing component.

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301.11 - Many associations that contemplate capital improvements establish a separate capital budget to accumulate funds for that purpose. The authors have observed this funding/budgetary method used to build new parks, expand clubhouses, etc. in large property owners associations.

301.12 – To understand the premises upon which we are operating, it is important to establish two principles right up front: (1) it is the responsibility of the association to establish a maintenance plan, and (2) it is the responsibility of the association to perform a reserve study. It is generally wise in both instances for the association to contract with outside professionals to perform these services. In the case of the majority of smaller associations (at least at the present time), there is no formal maintenance plan, and the reserve study reflects the estimated funding of the informal maintenance plan.

302 - Types of Reserve Studies

302.1 – Most people fail to realize that there are two general types of reserve studies: (1) the budgetary reserve study and (2) the reserve management plan. Each has a different primary purpose.

302.2 - The purpose of a budgetary reserve study is simply to establish a budget. There is usually no longer-range goal in mind when preparing this type of study. It is the type of reserve study generally prepared by the majority of companies providing reserve study services. These reports are generally issued as an “independent reserve study”, as defined in ICBI’s “Generally Accepted Reserve Study Standards,” (See chapter 4) without input from the governing board.

302.3 – The reserve management plan is exactly what its name implies - a plan for managing reserves. The primary purpose is to establish a dynamic, long-range plan that is intended to be continually updated. While also used for budgetary purposes, the budget is part of the process, not the primary goal. A reserve management plan is a collaboration between the reserve practitioner, management staff, the governing board, taking into account their intentions regarding future maintenance activities and budgetary limitations. Sustaining a reserve management plan usually means that the individuals performing the update procedures are using specialized reserve study software that is capable of being continually updated.

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302.4 – The type of reserve study to be prepared is the most important decision in the process, because it also is a major factor in determining the level of component data and required accuracy in data accumulation.

302.5 - The timing of future expenditures is very important in a reserve management plan, because the primary focus is attempting to predict the timing and cost of the activity. The accuracy of dates placed in service, useful life, remaining life, and replacement cost form the basis of the reserve management plan. Determination of the annual assessment amount is important in achieving the secondary goal of the study, the budgetary analysis.

302.6 - In contrast, the timing of future expenditures is generally far less critical in an independent budgetary reserve study than in a reserve management plan, because the sole focus of this type of study is on predicting the annual reserve assessment amount. As long as there are sufficient monies in the reserve fund to avoid running out, the relative timing of expenditures is not a significant issue. The calculation of the annual reserve assessment can be made based on knowing the future replacement cost and weighted average life of components. The timing of expenditures for specific components is less relevant, based on an assumption of multiple components with differing expenditure dates. The level of component detail is also relatively insignificant once a weighted average life of components has been determined.

303 - Scope of Components

303.1 – Determining the scope of components to be included in the reserve study is another very important decision within the reserve study process, as it affects how component information is accumulated. It also relates directly to the type of study to be performed. As described above, the level of component detail is less important for a budgetary reserve study than for a reserve management plan.

303.2 – There are two separate issues with respect to scope of components. The first is determining whether components should be included or excluded from the reserve study, and the second is determining the level of detail of components.

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303.3 – Including too much component detail in a reserve study means that keeping the system updated becomes such an administrative burden that the cost of maintaining that level of detail outweighs any benefit that could be derived from doing so. Including too little detail means you lose the ability to manage the data.

303.4 - In order to keep too much detail from creeping into the reserve study, two basic concepts should be considered: materiality and grouping. As with many things in life, the Pareto principle is often a good guideline; 20% of the reserve items represent 80% of total reserve costs, and 80% of reserve items represent only 20% of total reserve cost. Group the small items for a more manageable reserve plan.

303.5 - Applying the concept of materiality would guide you to omit components in which repair or replacement costs fall below a selected dollar threshold. Each association should establish its own materiality threshold, and that amount should normally be based on the size of the overall budget. For a small association, \$500 might be considered a reasonable materiality level. For a very large association, that amount might be \$10,000. Since by default, items not included in the reserve study must be paid from the operating budget, the key question here is how much can be absorbed in the operating budget in a given year without unduly distorting the operating budget? This should be considered and documented in the association's reserve policies, which are the subject of chapter 13.

303.6 – Applying the concept of grouping allows you to include smaller-cost components in the reserve study without too much detail. An example of when grouping might occur within an association can be illustrated by considering landscape lighting, which must be replaced over time but usually only when failure occurs. An individual landscape light fixture may cost only \$150 installed, which is well below the \$500 limit of a small association. However, if the association has 100 such lights, the total replacement cost is now \$15,000, which is a material amount that should be included in the reserve study, but usually as a single line item, not as 100 separate components.

303.7 - Let's look at some examples of different levels of component detail to see how they impact a budgetary reserve study. Exhibit 3 – 1 represents what most people would refer to as a “normal” level of component detail (sorry it's condensed down so it will fit on a page – but makes the image slightly blurry). This example is of a timeshare resort and consists of 54 separate components listed in the reserve study. This actually itself represents a summary of sorts, as certain of the components – lighting, as an example may consist of more than a dozen separate lighting fixtures within the unit.

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Exhibit 3 - 1 – Component Detail

Item #	Component	Category	Quantity	Meas Basis	Unit Cost	Date Placed in Service	Life		Current Replacement Cost
							Useful	Remain	
1	Art Work	FF&E 7 Year Cycle	30	Each	\$ 750	7/1/14	15	13.50	\$ 22,500
2	Balcony Railings - Replace	FF&E 14 Year Cycle	30	Job	\$ 1,025	7/1/14	20	18.50	30,750
3	Balcony Resurface	FF&E 14 Year Cycle	30	Each	\$ 700	7/1/14	20	18.50	21,000
4	Bar Stools	FF&E 7 Year Cycle	30	Each	\$ 250	7/1/14	15	13.50	7,500
5	Bath Remodel	FF&E 14 Year Cycle	30	Job	\$ 2,500	7/1/14	25	23.50	75,000
6	Bathtub	FF&E 14 Year Cycle	30	Each	\$ 950	7/1/14	20	18.50	28,500
7	Bed - Murphy	FF&E 7 Year Cycle	30	Each	\$ 2,200	7/1/14	15	13.50	66,000
8	Bookcase	FF&E 7 Year Cycle	30	Each	\$ 250	7/1/14	15	13.50	7,500
9	Cabinets	FF&E 14 Year Cycle	30	Set	\$ 1,500	7/1/14	20	18.50	45,000
10	Carpet	FF&E 7 Year Cycle	30	Job	\$ 1,500	7/1/14	10	8.50	45,000
11	Chair & Table Set	FF&E 7 Year Cycle	30	Each	\$ 950	7/1/14	15	13.50	28,500
12	Chair - Patio Plastic	FF&E 7 Year Cycle	30	Each	\$ 75	7/1/14	5	3.50	2,250
13	Chair - Upholstered	FF&E 7 Year Cycle	30	Each	\$ 450	7/1/14	15	13.50	13,500
14	Chairs - Dining	FF&E 7 Year Cycle	30	Each	\$ 175	7/1/14	15	13.50	5,250
15	Counter Top - Granite, Large	FF&E 14 Year Cycle	30	Each	\$ 1,350	7/1/14	20	18.50	40,500
16	Decorator Package	FF&E 7 Year Cycle	30	Lot	\$ 3,850	7/1/14	15	13.50	115,500
17	Dishwasher	FF&E 7 Year Cycle	30	Each	\$ 450	7/1/14	15	13.50	13,500
18	Card Reader	FF&E 14 Year Cycle	30	Each	\$ 225	7/1/14	10	8.50	6,750
19	Door - Interior	FF&E 14 Year Cycle	30	Group	\$ 350	7/1/14	25	23.50	10,500
20	Door - Sliding Glass	FF&E 14 Year Cycle	30	Each	\$ 850	7/1/14	25	23.50	25,500
21	Door - Unit Entry Interior	FF&E 14 Year Cycle	30	Each	\$ 575	7/1/14	25	23.50	17,250
22	Doors - Closet Sliding	FF&E 14 Year Cycle	30	Each	\$ 300	7/1/14	15	13.50	9,000
23	Drapes	FF&E 7 Year Cycle	30	Each	\$ 750	7/1/14	15	13.50	22,500
24	Dresser	FF&E 7 Year Cycle	30	Each	\$ 350	7/1/14	15	13.50	10,500
25	DVD Player	FF&E 7 Year Cycle	30	Each	\$ 185	7/1/14	10	8.50	5,550
26	Fan Lights	FF&E 7 Year Cycle	30	Each	\$ 350	7/1/14	20	18.50	10,500
27	Faucet - Bath Sink	FF&E 7 Year Cycle	30	Each	\$ 170	7/1/14	20	18.50	5,100
28	Faucet - Kitchen Sink	FF&E 7 Year Cycle	30	Each	\$ 170	7/1/14	15	13.50	5,100
29	Faucet - Shower	FF&E 7 Year Cycle	30	Each	\$ 30	7/1/14	20	18.50	900
30	Queen	FF&E 7 Year Cycle	30	Each	\$ 550	7/1/14	15	13.50	16,500
31	HVAC Air Handler	FF&E 14 Year Cycle	30	Each	\$ 3,500	7/1/14	20	18.50	105,000
32	Lighting - Unit	FF&E 14 Year Cycle	30	Set	\$ 1,950	7/1/14	30	28.50	58,500
33	Mattress - Queen	FF&E 7 Year Cycle	30	Each	\$ 550	7/1/14	7	5.50	16,500
34	Microwave	FF&E 7 Year Cycle	30	Each	\$ 450	7/1/14	10	8.50	13,500
35	Nightstand	FF&E 7 Year Cycle	30	Each	\$ 300	7/1/14	15	13.50	9,000
36	Paint - Unit	FF&E 7 Year Cycle	30	Job	\$ 2,350	7/1/14	9	7.50	70,500
37	Range - Oven	FF&E 14 Year Cycle	30	Each	\$ 700	7/1/14	15	13.50	21,000
38	Refrigerator - Mini	FF&E 14 Year Cycle	30	Each	\$ 300	7/1/14	15	13.50	9,000
39	Shower Door	FF&E 14 Year Cycle	30	Each	\$ 515	7/1/14	20	18.50	15,450
40	Shower Heads	FF&E 7 Year Cycle	30	Each	\$ 170	7/1/14	20	18.50	5,100
41	Sink - Bath	FF&E 14 Year Cycle	30	Each	\$ 170	7/1/14	20	18.50	5,100
42	Sink - Kitchen	FF&E 14 Year Cycle	30	Each	\$ 305	7/1/14	20	18.50	9,150
43	Sleeper Sofa	FF&E 7 Year Cycle	30	Each	\$ 1,400	7/1/14	10	8.50	42,000
44	Smoke Detector	FF&E 7 Year Cycle	30	Each	\$ 170	7/1/14	25	23.50	5,100
45	Table - Coffee	FF&E 7 Year Cycle	30	Each	\$ 325	7/1/14	15	13.50	9,750
46	Table - End	FF&E 7 Year Cycle	30	Each	\$ 250	7/1/14	15	13.50	7,500
47	Table - Patio Plastic	FF&E 7 Year Cycle	30	Each	\$ 75	7/1/14	5	3.50	2,250
48	Table - Rattan Glass Dining	FF&E 7 Year Cycle	30	Each	\$ 450	7/1/14	15	13.50	13,500
49	Television - 32" Flat Screen	FF&E 7 Year Cycle	30	Each	\$ 295	7/1/14	10	8.50	8,850
50	Television - 42" Flat Screen	FF&E 7 Year Cycle	30	Each	\$ 395	7/1/14	7	5.50	11,850
51	Tile - Floor 8" x 8"	FF&E 14 Year Cycle	30	Job	\$ 850	7/1/14	25	23.50	25,500
52	Toilet - Porcelain	FF&E 14 Year Cycle	30	Each	\$ 250	7/1/14	20	18.50	7,500
53	Parking Lot Resurface	Paving	1	Job	\$ 185,000	7/1/07	15	6.50	185,000
54	Roof	Roofing	1	Job	\$ 250,000	7/1/07	20	11.50	250,000
Total									<u>\$ 1,620,000</u>

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303.8 – The “normal” level of component detail allows readers of the reserve study report to see, at least at a superficial level, what is included in the reserve study. But, is that really necessary if the only purpose of performing a reserve study is to perform a budgetary study to establish a reasonable annual budget for contribution to reserves. The answer is NO! Once you have determined the total cost of components and the weighted average useful life, the level of component detail becomes irrelevant. Exhibit 3 – 2 below summarizes the same component list into the four category levels that exist in the above example.

Exhibit 3 - 2 – Component Summary

Category	Remaining Life	Current Cost	Future Cost	Balance Allocation
Paving	13.5	\$ 185,000	\$ 185,000	\$ 12,606
Roofing	5.5	250,000	250,000	17,036
FF&E 7 Year Cycle	5.5 to 5.5	735,000	735,000	214,649
FF&E 14 Year cycle	10.5	450,000	450,000	65,709
Totals		<u>\$ 1,620,000</u>	<u>\$ 1,620,000</u>	<u>\$ 310,000</u>

303.9 – Exhibit 3 – 3 below goes one step further and reduces all the components to a single line item. The fact is that the funding plan for all three of these examples would be virtually identical. The level of component detail has little impact on the funding plan.

Exhibit 3 - 3 – Single Component

Category	Remaining Life	Current Cost	Future Cost	Balance Allocation
Components	9.0 to 9.0	\$ 1,620,000	\$ 1,620,000	\$ 310,000
Totals		<u>\$ 1,620,000</u>	<u>\$ 1,620,000</u>	<u>\$ 310,000</u>

303.10 – We don’t recommend preparing reserve studies at the component levels demonstrated in Exhibits 3 – 2 and 3 – 3. The purpose was simply to illustrate that there is no “right” answer as to the correct level of component detail to be included in a reserve study. Rather, it is a matter of the purpose for performing a reserve study; to create a budget, or to create a reserve management plan. Because reserve expenditures typically represent the largest expenditures made by associations, the authors strongly recommend establishing a reserve management plan, and that means that level of component detail becomes very important.

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303.11 – A reserve study prepared as a reserve management plan tracks components at the same level at which expenditures are made. Components grouped at too high a level become useless when expenditures must be made for only a portion of the summarized component. If the reserve study component structure is created at a level with too much detail, then components must be combined when expenditures are made.

304 - Field Practices

304.1 – The industry has always stated that a reserve study consists of two parts: the physical analysis and the financial analysis. What is often overlooked is that the physical analysis itself consists of two parts: the on-site analysis and the component analysis. The authors prefer to identify three different steps in the reserve study:

- The on-site analysis
- The component analysis
- The financial analysis

Because the on-site analysis and component analysis may be performed by two different individuals, the authors believe they should actually be considered as two separate parts of the reserve study process. We believe the CAI / APRA approach of considering the on-site and component analyses together as a single physical analysis process does not adequately convey the importance of the component analysis, which is where the valuation process occurs.

304.2 - The component analysis itself is normally performed in two separate stages of the reserve study. The first step is the tentative identification of components before the on-site analysis is performed. Based on a review of the prior reserve study, inquiry of association management or maintenance staff, and a review of satellite and street-view (where available) photos, a determination is made about what components are to be included in the reserve study versus those to be excluded. The second step is the final condition assessment and valuation of components.

304.3 – The purpose of the on-site analysis is to identify, quantify, and evaluate condition of components. A decision must be made as to who will perform this analysis. The standard of care is that the on-site analysis is a “competent, visual observation.” That means that the individual performing this activity should not only be knowledgeable in identifying components, but also be able to at least reasonably evaluate component condition. In most cases, the association does not possess that expertise in-house, so it retains a reserve study company to perform the reserve study.

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304.4 – The on-site analysis is the most subjective area of the reserve study, as the component condition assessment and subsequent component analysis involves evaluating current condition, effective age or remaining life, and valuation or replacement cost. It is quite possible that different individuals may recommend different repair alternatives. Consequently, there will generally be different results generated by different reserve study practitioners who examine the same underlying components. This is based on the practitioner's judgment, and can only be legitimately criticized if the proper level of care is not exercised.

305 - Calculation Methods

305.1 – The calculation methods selected for the reserve study apply another layer of possible differences in results of a reserve study. There are two primary methods of calculating reserves: the component method and the cash flow method. These methods are discussed in detail, with examples of calculations, in chapter 7.

305.2 – The component method, as its name implies, makes a separate calculation for each component included in the reserve study, then totals the results to determine a funding plan. The basic calculation consists of determining the repair or replacement cost, subtracting from that the amount of reserve cash on hand that is allocated to this component, then dividing that remaining “unfunded amount” by the remaining life. The result is an annual reserve contribution for that specific component. By definition, the component method has a goal of 100% percent funding. We cannot recommend use of the component method as, depending on the allocation of available reserve cash between components, each different allocation will result in different reserve contribution requirements.

305.3 – The cash flow method is at once more complex, yet the simplest of the methods. It is more complex because the calculations occur at a macro level, for all components combined. But the cash flow method is simplicity itself when viewed as a concept: schedule the cash expenditures over time, consider total reserve cash on hand (or projected, and no allocation required) at the effective date of the study, and build a future cash flow income stream adequate to support that level of expenditures. No specific funding goal is inherent in the cash flow method. We recommend only using the cash flow method, and find that lenders focus on cash flow, not percent funded.

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305.4 – Our admitted bias regarding funding methods, in recommending solely the cash flow method, is grounded in good reason. As explained and demonstrated by example, the component method is subject to manipulation based on assumptions made; as a result, we believe the component method should not be used under any circumstances, unless required by statute.

305.5 – Another calculation that is often present in reserve studies but is not required, is the percent funded calculation. While conceptually simple, there are many variations of the calculation that can yield surprisingly different results. (See chapter 8 for a full discussion of the percent funded calculation.)

305.6 - The authors use the calculation method for percent funded that is logically supported: the inflation-adjusted method. This method is explained in more detail in chapter 8. While other methods may be used for statutory disclosure purposes, the ICBI requires its members to use the inflation-adjusted method.

306 - Funding Goals and Plans

306.1 – There is no one single “right” funding goal. Each association is unique, and should determine its own funding goal. CAI “National Reserve Study Standards” identify three different funding goals: (1) Full Funding, (2) Baseline Funding, and (3) Threshold Funding.

306.2 – While understanding both the desire to establish a naming convention for different funding goals and the conceptual basis for the names that have been established, the authors, and the ICBI, take exception to this naming convention. We see these as general characterizations that can be misleading or effectively defy description.

306.3 – “Full Funding” as defined under CAI’s National Reserve Study Standards is “Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.” The two problems we have with this definition are as follows: (1) the use of the term “Full Funding” implies that monies are available “now” to replace all components, and (2) 100% funded under the CAI definition of percent funded produces a skewed result. CAI definitions actually describes a sequential or proportional 100% funded amount, and the authors believe it is misleading to describe that as “Full Funding.”

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306.4 – “Baseline Funding” as defined under CAI’s National Reserve Study Standards is “Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.” Under that definition, ALL funding plans are baseline plans. We understand the intent of this definition is to keep the reserve cash balance “barely” above zero, without retaining any additional cash. Under this funding model, the association assumes significant risk. Decades of experience in the community association industry has demonstrated that expenditures for major repairs and replacements rarely occur exactly when anticipated, or exactly for the cost anticipated. When there is no margin for error, as is the literal definition of a baseline funding goal, any difference in timing or cost can spell “special assessment.”

306.5 – “Threshold Funding” as defined under CAI’s National Reserve Study Standards is “Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than ‘Fully Funding’.” The only way to be more conservative than fully funding (again, using the CAI definition of fully funded) is to purposely be more than 100% funded. Obviously, because baseline funding and fully funded are intended to describe the two extremes of funding, threshold funding is intended to be a middle-of-the-road, compromise funding goal. It is much easier to describe ALL funding goals as threshold goals; you’re either near the low end (baseline funding) or the high end (fully funded).

306.7 – Frankly, establishing a cash flow projection that provides enough money to pay for estimated future expenditures is the only real funding goal that matters. For those associations that experience a “peak expenditure year,” developing such a funding goal is challenging. Using a percent funded calculation, under the inflation-adjusted method, is an objective method of measuring status of reserves.

306.8 – Using a percent funded calculation to determine “strength” of the reserve fund is both an oversimplification and a misnomer. Strength of the reserve fund is determined by cash flow and no other factor. You either have the projected cash flow to meet estimated obligations, or you don’t. Percent funded has limited value, and that value is restricted to measuring current or projected balance against a theoretical 100% funded calculation. As described in chapter 8, depending on how the percent funded calculation is made, we have observed variations in the calculation of up to 30%. That’s too significant of a discrepancy to provide reliability.

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306.9 – The only real purpose for calculating percent funded is to determine the fairness of reserve assessments. If an association is constantly 100% funded (using the inflation-adjusted method of calculating percent funded), that means that current owners are paying for their fair share of use of the components, assuming a straight-line time decay factor of components. At any percentage less than 100%, it means that current owners are paying less than their fair share, and future owners will have to make up the difference. Current and future owners may represent the same group of individuals but, given our personal observations, approximately 5% - 10% of units change hands annually, meaning that in as few as ten years, you could theoretically have an entirely different set of owners.

306.10 – “Statutory Funding” is another term defined under National Reserve Study Standards as “Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes.” We simply have never seen this in practice, so will not discuss it further.

307 - Reporting

307.1 – No matter how right you get all the decisions on type and scope of reserve study, calculation methods, and funding goals and plans, if they are not properly communicated, you still have the potential for a failed reserve study on your hands. Properly reporting reserve study results means you can successfully communicate. Without proper reporting, you cannot adequately communicate the status of your reserves. This means that you must consider the needs of all potential users of the reserve study report.

307.2 – Reporting on reserve studies is difficult, because you typically have two different types of users of the reports, each with completely different sets of needs. Some users are served best by summary exhibits, while others require more detail. Reports should consist of financial exhibits and narrative disclosures that communicate key information to both sets of users.

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307.3 – The most important information to be communicated in the reserve study is:

- Current position of the reserve fund
- Cash and other resources available to fund future expenditures
- Major components included in the reserve study
- Major components excluded from the reserve study
- Projected cash flow for 30 years
- Summarized expenditures for 30 years
- Summarized component list
- Disclosures of major assumptions contained in the study
- Disclosure of any excluded conditions

307.4 – Volunteer board members and management staff usually work best with summarized exhibits that communicate the big picture, perhaps supplemented with charts. The human mind tends to more easily understand a one-page financial exhibit than a multi-page financial exhibit. For this reason, we recommend that summary financial exhibits of one or two pages each be used to prepare the reserve study report. Financial exhibits should reflect the information described above.

307.5 – In addition to summary financial exhibits, management staff also need detailed financial exhibits that allow for management of components. Component level financial exhibits meet this need, but are considered too detailed to easily communicate the big picture.

307.6 – We have observed that the majority of reserve study companies do not provide summary level exhibits or adequate narrative disclosures. The average reserve study report tends to be in excess of 100 pages, and provides so much detail that it is incomprehensible to anyone other than management staff involved in the reserve study process.

307.8 – The ICBI’s solution to these reporting issues is to issue a summary level report that is the “official” reserve study report, and rarely exceeds 20 pages. Supplemental schedules can be issued at an individual component level, intended for management staff that must match actual expenditures with those individual components. The supplemental schedules may consist of hundreds of pages, depending on scope and number of components included in the study.

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307.9 – This is the same conceptual framework as used in the accounting world. For example, the audit report is a summarized financial document with narrative disclosures, and is the only document provided to the public. This is the equivalent of the ICBI format summary reserve study report.

307.10 – In the accounting world, the general ledger is a very large, detailed document that serves as the foundation upon which the summary level audit report is constructed. The general ledger is the equivalent of the detail component level supplemental schedules of the reserve study. The general ledger is not issued to the public, but is for management use only, just as the supplemental reserve study schedules are designed for management use only.

307.11 – Issuing a summary level reserve study report supplemented by detail schedules for management use satisfies the needs of both sets of users of the reserve study. This is exactly what is built into the reporting standards established by the ICBI.

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400 - Reserve Study Organizations

400.1 - The reserve study industry is a young industry still in the process of defining itself. The following comparison of standards established by various industry organizations demonstrates that there is still little agreement amongst reserve preparers regarding certain key underlying principles.

400.2 – Three organizations that have established standards for reserve studies. In order of the date on which they established their standards, those organizations are: the Community Associations Institute (CAI), the Association of Professional Reserve Analysts (APRA), and the International Capital Budgeting Institute (ICBI).

400.3 - CAI is the largest community association industry trade organization in the United States. It established the National Reserve Study Standards in 1998, and created a program offering the RS (Reserve Specialist) designation shortly thereafter.

400.4 - Formed as a trade organization solely to serve its reserve preparer members, APRA was created shortly after CAI adopted its standards and designation program by a group of reserve preparers who were dissatisfied with the CAI – RS program. APRA established its own Reserve Study Standards, which closely mirror CAI’s standards. Originally crafted in the late 1990s, APRA’s standards were modified in 2012 but are still substantially similar to CAI’s standards. APRA offers its own designation program, the PRA (Professional Reserve Analyst) for its members.

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400.5 - ICBI is a U.S.-based educational organization serving the USA and international community. ICBI differs from CAI and APRA in that: (1) it deals with standards only; (2) is not a trade organization; and (3) does not offer a designation program for reserve preparers. ICBI also collaborates with other organizations that depend upon independent standards for reserve studies.

400.6 - ICBI was created in 2014 by a group of individuals from the larger community association industry who believed that the CAI and APRA standards did not sufficiently address significant issues relevant to reserve studies. Additionally, international members who were much newer to the field of reserve studies, and who were not influenced by the industry history existing in the USA, were able to offer a fresh approach. In observing commonly accepted American practices, they were reluctant to adopt the standards of CAI or APRA, perceiving them as not being sufficient, relevant, or - in some cases - appropriate to the needs of their respective countries.

401 - Discussion of Key Principles / Standards

401.1 – The current informal group of reserve study preparers represents an industry in search of a profession. Although reserve study preparers formed as a group and, through CAI, created their first set of standards in 1998, they have not been able to agree on certain key issues. In fact, the majority of reserve preparers will not agree to a standardization of reporting formats at this time. Until those two very significant issues can be resolved, reserve studies cannot be considered a profession. One of the characteristics of any profession is that the individuals involved - the “professionals” - must be perceived to be in agreement on significant issues, including the reporting of results. At present, in mid-year 2015, those issues remain unresolved.

401.2 – Several of the ICBI principles and standards are discussed in detail below, since they represent a significant departure from CAI / APRA standards. The key differences or issues of disagreement are:

1. Responsibility for preparation of the reserve study
2. Definition of “component”
3. Standardization of calculations
4. Minimum software requirements
5. Acknowledgement of unique requirements for certain types of associations
6. Standardization of minimum disclosure requirements
7. Standardized reporting formats
8. Levels of service and type of reports

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401.3 – Each of the above conceptual issues affect the very foundation of defining what a reserve study is. The first organizations to establish reserve study standards never addressed these very basic issues. Because certain of these issues are so basic to the preparation of a reserve study, the lack of a consensus about how to handle them limits the ability of the public to have confidence in reserve study reports. Each of these issues is addressed in the paragraphs that follow.

401.4 - Responsibility for preparation of the reserve study – The association is responsible for preparing both a maintenance plan and a reserve study. The association may delegate the performance of these tasks, but not the responsibility. This is not addressed in CAI or APRA standards. ICBI standards acknowledge this fact through the concept of the reserve management plan. (See 401.6 below.) The association may either prepare the reserve study in-house, or may retain an outside consultant. That outside consultant may be retained to perform either a reserve management plan (under ICBI standards only) or an independent reserve study.

401.5 – CAI / APRA standards are apparently based on the concept that the reserve preparer will issue an “independent reserve study.” The term “apparently” is used because neither the type of report nor ownership of the report are even discussed in their standards.

401.6 – ICBI standards provide flexibility to reserve practitioners and associations by allowing two types of reserve studies: the reserve management plan and the independent study. The reserve management plan is a study performed in collaboration between the reserve preparer and the association, and fully recognizes the association’s responsibility for, and ownership of, the reserve study. The preparer owns only his or her one or two-page report summarizing the reserve study.

401.7 - Definition of “component” – CAI and APRA standards allow wide latitude in the determination of what is considered a component. They also exclude any components that do not have a predictable life. In practice, however, the predictable life requirement is often routinely ignored by reserve preparers. In addition, within these standards, specific guidance is given that long-lived components that cannot be observed (specifically in wall, under slab, and underground utilities) should be excluded from the reserve study until they show signs of failure.

401.8 – ICBI standards have seemingly minor, but very significant, differences in defining components. ICBI does not have a predictable life restriction. This means that items such as landscape replacement; block wall repairs; and golf course fairways, tee boxes and greens - all of

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which do not have a predictable life - are includible as components. The majority of reserve preparers had already been including at least some portion of these types of components anyway, somehow justifying their inclusion even though they did not meet the CAI / APRA predictable life requirement.

401.9 – The most significant difference between standards is that long-lived components that cannot be observed, such as in wall, under slab, and underground utilities, are specifically included in the definition of components and recommended for inclusion in the reserve study under the ICBI standards. The authors of the ICBI standards believed that the CAI / APRA position of excluding these types of components until they show signs of failure was not a logically supportable position. These components do in fact have a predictable, although very long, life, and therefore should have been included under the CAI / APRA standards. The authors of this guide have observed a number of engineering or contractor experts testifying in construction defect cases that such components typically have a life span of 40 – 60 years. While that is indeed a long life and a fairly wide spread on range of life, these are the most expensive components to replace in a condominium association, and therefore should not be ignored. The authors personally have experience with approximately 10 associations that either have fully or partially replaced, or are recognizing the relatively immediate need to replace such components, at costs ranging from \$10,000 to \$50,000 per unit. The fact that these components cannot be easily observed does not change the fact that they have a relatively predictable life.

401.10 - Standardization of calculations – CAI and APRA standards provide examples of how to calculate percent funded, but contain no other calculation requirements. Basically, every practitioner is left to decide for himself or herself as to how to calculate and present future expenditures. The authors do not agree with the CAI or APRA positions on calculations. The ICBI adopted standards requiring standardized calculations.

401.11 – As is more fully discussed in Chapter 8 on “Understanding Percent Funded”, the CAI and APRA model inserts an assumed interest earned factor, which dilutes the denominator of the percent funded calculation, resulting in what the authors believe to be an overstatement of percent funded. The CAI / APRA standards also fail to identify if percent funded should be calculated using the current cost, future cost, or inflation-adjusted cost method. ICBI requires the inflation-adjusted cost method, believing it to be the only method that can be logically supported.

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401.12 – Because the CAI and APRA standards are silent on any other calculation requirements, reserve study practitioners have typically developed their own method of calculating and presenting not only percent funded, but also future expenditures and funding. We know of one prominent reserve study company that, in the absence of standards, has adopted the rather unique position of including inflation for future replacement costs for only the first five years of the 30-year projection period, because “the numbers just get too crazy after that.” Further, because there is no requirement under CAI or APRA standards to disclose such a position, this company doesn’t disclose their position to their clients. In the authors’ opinion, that is misleading to the public and to readers of the reports, for it will result in a constant lower-than-required funding plan as long as we are in an inflationary period, as we have been for the past 70-plus years.

401.13 - Minimum software requirements – CAI / APRA standards do not have any software requirements. Since software is such an integral part of the reserve study process and calculation of future expenditures, both the authors and ICBI believe that the public can be protected from faulty calculations only if reserve study software meets certain minimum calculation standards. The authors have observed certain calculation issues in reports generated by various reserve study companies over the years, which could have been avoided if the software used had met certain criteria.

401.14 - As noted above, percent funded calculations are a constant issue. In addition to the inappropriate dilution of the percent funded calculation by the inclusion of an interest earned factor, the authors also see statutory reporting issues. As an example, California civil code section 5570(7)b(4) requires percent funded calculated based on the current cost method which, as chapter 8 demonstrates, is a completely inappropriate method of calculating percent funded for purposes of an actual funding plan for anything other than California disclosure purposes. California is the second largest state in terms of number of associations, so this is a significant issue. This means that any reserve study company preparing reports for California associations must have software capable of calculating percent funded using both the current cost method and inflation-adjusted cost method.

401.15 – The authors are aware of one reserve study company that exclusively uses the future cost method of calculating percent funded. This results in both an understatement of percent funded and a failure to comply with California disclosure requirements. We are forced to explain this discrepancy every time we take on an association client that previously used this company.

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401.16 - ICBI standards require the use of software that is certified to meet the minimum calculation and presentation requirements. ICBI has established minimum software requirements, and has created a software certification process. As of the date of this writing, four software products have been certified by ICBI to meet their requirements. The ICBI software certification process is explained on the ICBI website at

<http://www.capitalbudgeting.org/index.php/software-certification>.

401.17 - Acknowledgement of unique requirements for certain types of associations – CAI / APRA standards do not distinguish between types of associations, even if certain types of associations may have very unique needs. We are not aware that any of the individuals involved in the establishment of the original CAI standards had experience with timeshare associations, whose needs differ significantly from whole ownership associations.

401.18 - The ICBI Reserve Study Standards Committee was comprised of 16 industry professionals, eight of whom had either worked in the timeshare industry, had significant experience with timeshare reserve studies, or had other significant exposure to the timeshare industry. These individuals were unanimous in their support of creating standards for timeshare reserve studies that included unit tracking capabilities. (See the section regarding timeshare associations in Chapter 14 for a complete discussion of the unique needs of timeshare and other fractional associations. Also included are examples of why the “common area component” approach used by the majority of reserve practitioners fails to meet the needs of those associations.)

401.19 - Standardization of minimum disclosure requirements – While CAI and APRA do have disclosure requirements, ICBI considered those disclosures incomplete and therefore developed its own set of disclosure requirements. (See comparison in Appendix 4A for a complete listing of disclosures.) The key disclosure differences are discussed below.

401.20 – ICBI disclosure standards require identification of both the individuals performing the on-site analysis and the association staff interviewed as part of the reserve study process, as well as a statement regarding the procedures performed. CAI and APRA standards are silent on these points.

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401.21 – CAI and APRA disclosure standards require a statement regarding completeness, including “material issues which, if not disclosed, would cause a distortion of the association’s situation.” In spite of this requirement, the authors have never observed a reserve study report prepared by any other reserve study company (other than our own) that discloses in wall, under slab, and underground utilities of a condominium association. These are usually the most expensive components in any condominium project, yet are routinely omitted from the reserve study with no disclosure. ICBI standards specifically require a list of excluded components and the reason for exclusion.

401.22 – ICBI standards require disclosure of other exclusion or limitations on the reserve study, such as building code upgrades, geological or environmental conditions, soil contamination, etc.

401.23 CAI / APRA standards require a disclosure that the “Reserve Balance” (reserve cash and investments) is based upon information provided and is not audited. ICBI standards go considerably further in financial disclosures, requiring a description of the cash flow (calculation) method, disclosure of interest income and inflation assumptions, annual adjustment factor (if any) of annual assessments, disclosure of how the reserve estimated beginning (cash and investment) balance was calculated, and statement that actual results may vary from estimated amounts.

401.24 – ICBI standards require disclosure of significant assumptions and suggests a list of 11 items that should be routinely disclosed. The ICBI reporting format requires these disclosures to be presented in a narrative format immediately following the required financial exhibits comprising the reserve study. CAI and APRA standards have no equivalent requirement.

401.25 – ICBI requires inclusion of regulatory disclosures, whereas CAI and APRA have no such requirement. Regulatory disclosures consist of either federal or state / local requirements that are in addition to the standard financial exhibits and other disclosures. For associations located in the USA, the Financial Accounting Standards Board has required reserve disclosures for all associations that present compiled, reviewed, or audited financial statements. This disclosure is required by ICBI to be included as part of the reserve study report. In addition, several states require disclosures for associations located within their states.

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401.26 - Standardized reporting formats – CAI and APRA require certain report elements, but don't require specific formats. The result is: (1) no "preparer" report on the financial documents, (2) a wide disparity of reporting practices, (3) failure to include adequate disclosures, and (4) routine inclusion of content not meaningful to the reserve study report. This lack of standardization in reporting is a significant issue for the industry. This is evidenced by instructions in both CAI and APRA applications that require the applicant to identify exactly where in their report the elements appear to comply with their standards; otherwise, the elements often cannot be found.

401.27 – ICBI requires both a specific reporting format and specific elements to be included within the financial exhibits. In addition to the financial exhibits, ICBI standards also require: (1) a preparer's report, (2) narrative disclosures, (3) Required Supplementary Information (RSI) consisting of the detail component list, and (4) regulatory information. Reserve practitioners may, at their option, also include: (5) Supplemental Information (not required) that may consist of any additional exhibits or narrative comments not included in the required exhibits and disclosures. This allows the practitioner flexibility to include any information that does not contradict the required disclosures.

401.28 - Levels of service and types of reports – CAI and APRA identify three levels of service - although in some instances, they do refer to these as types of reports rather than levels of service. The three report "levels" identified are:

- Level 1 – Full reserve study with site visit
- Level 2 – Update of reserve study with site visit
- Level 3 – Update of reserve study without site visit

401.29 – The authors disagree with the basic premise of the CAI / APRA service levels, and believe that applying the label of "level" is a misnomer. These are actually "types" of reserve study engagements, and accordingly "types" of reports. The fact is that CAI and APRA have not identified service levels at all. Based on the examples of reports that we have observed being issued by reserve practitioners, it would appear that the only level of service contemplated was what ICBI has identified as an "independent reserve study." The failure to differentiate between service levels and types of engagements has caused confusion in the community association industry.

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401.30 - The likely reason for this oversight is the dominant influence of engineers in the CAI and APRA standards development process. Engineers routinely issue reports as their expert work product. They are typically not engaged to collaborate with their clients in developing a report, as they are the outside expert. As a result, they contemplated a continuation of the only level of service that they could envision: the independent analysis, resulting in the independent reserve study.

401.31 - ICBI standards distinguished the difference between levels of service and types of engagements. Levels of service were named as: (1) independent reserve study and 2) reserve management plan. The types of engagements actually correspond to what others called levels of reports. They are:

- Type 1 – Full reserve study with on-site analysis
- Type 2 – Update of reserve study with on-site analysis
- Type 3 – Update of reserve study without on-site analysis

401.32 – As an example of the rather loose language that permeates the reserve study industry (a pet peeve of the authors), the term “site visit” adopted by CAI and APRA is vague enough to defy a definition of what is actually meant. The word “site” leads one to believe that this type of engagement somehow involves the site. The word “visit”, however, forces one to guess what was intended. The authors have adopted the same terminology used by the ICBI: “on-site analysis.” This term more precisely identifies that the engagement took place on site and involved an analysis, as opposed to the extremely vague term “visit.”

401.33 – The “independent reserve study” level of service is an independent study conducted by a reserve practitioner that applies his or her opinions on all factors related to the study, without input from the association. This lack of any significant interaction is one reason that independent reserve studies will often not fit into the association’s budget structure or reflect their actual maintenance plan. The primary purpose of a reserve study is to establish a budget. An independent study generally cannot be used as an ongoing management tool because it would require continual work by the outside consultant. The practitioner may issue his or her independent report on ANY of the three types of engagements.

401.34 – The “reserve management plan” level of service is exactly what its name implies: a plan for managing reserves. The primary purpose is to establish a dynamic, long-range plan that is intended to be continually updated. Consequently, a reserve management plan almost always represents a collaboration between the reserve practitioner and the association. While also used

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for budgetary purposes, the budget is part of the process, not the primary goal. Sustaining a reserve management plan usually means that the individuals performing the update procedures are using specialized reserve study software that is capable of being continually updated.

401.35 - The authors generally favor the reserve management plan over the independent reserve study level of service. Since providing internet-based software is a standard part of all our reserve study engagements, our reserve study company naturally attracts associations that desire this level of service, as it is not available from the majority of reserve study companies.

402 - Examination of Reserve Study Standards – ICBI, CAI, APRA

402.1 – The challenge of creating standards for the practice of reserve studies is that it involves three entirely different bodies of knowledge: (1) knowledge of facilities maintenance, (2) valuation knowledge, and (3) knowledge of financial reporting. Facilities maintenance knowledge is necessary to be able to identify, quantify, and evaluate the components that should be included in a reserve study. Valuation knowledge is necessary to properly value the current and future cost of components. Financial modeling and reporting knowledge is necessary to be able to perform the calculations necessary for projecting future financial events and presenting information in a consistent, understandable format.

402.2 - Each of the three organizations identified above has its own vision for the reserve study industry. These are competing rather than compatible visions, at least to some degree. CAI and APRA created an individualistic approach to calculations and reporting, which contributes to the current lack of consistency in both calculations and reporting of reserve studies. The ICBI established a more consistent, structured approach in reporting, calculations, and definitions of what should be included in the reserve study. At the same time, the ICBI reporting structure still allows for customized or individual presentations as supplemental information.

402.3 - CAI and APRA standards were created by reserve practitioners, primarily engineers, without any outside input. The individuals involved were all based in the United States, as at that time, there effectively was no reserve study industry outside the USA. The ICBI standards development group included individuals from six countries and was not limited to just reserve practitioners, but rather included a broad cross-section of community association industry stakeholders.

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402.4 – In order to understand the significant differences between the standards issued by the three organizations identified above, it is necessary to view them on a side-by-side basis. Accordingly, Appendix 4.1 provides a comparison, using the ICBI standards, which are the most extensive, as a control. This chart is presented in a summarized format so that it is easier to digest. A full set of the ICBI standards are presented in Appendix 4.2 to this chapter, along with summaries of CAI (Appendix 4.3) and APRA (Appendix 4.4) standards. Immediately below are abbreviated descriptions of the standards.

403 - ICBI Standards

403.1 – ICBI standards are comprised of the four following documents, each broken down into additional sections:

- Reserve study principles - These establish the basic principles that are the foundation of the entire reserve study process. They apply whether the reserve study is self-prepared or is prepared by an outside reserve study consultant.
 - General principles
 - Component principles
 - Calculation principles
 - Service level principles
 - Reporting principles
 - Software principles
- Interpretations of reserve study principles – Interpretations expand and clarify the basic principles and follow the same structure.
- Reserve study standards – Standards establish the procedures that implement the reserve study process to employ the principles established above.
 - General standards
 - Field standards
 - Reporting standards
 - Software standards
- Interpretations of reserve study standards – Interpretations expand and clarify the basic standards and follow the same structure.

See the full list of ICBI standards at Appendix 4.2.

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404 - CAI Standards

404.1 – CAI standards are comprised of:

- Levels of Service – These are the three levels of service described in paragraph 4.34.
- Terms and Definitions – This consists of 24 definitions of terms, some of which really equate to principles but are not defined as such. The authors disagree with several of the definitions, which are discussed in more detail elsewhere in this chapter.
- Reserve Study Required Contents – This consists of a 19-point checklist.
- Reserve Study Required Disclosures – This consists of an 8-point checklist.

See the full list of CAI standards at Appendix 4.3.

404.2 – Except for certain exceptions as discussed above in this chapter, the authors believe that the above CAI “standards” were simply a first step towards establishing actual reserve study standards. Unfortunately, they never evolved, and there has been considerable resistance to making any changes to these CAI “standards.”

404.3 - Given what CAI group of reserve preparers developed, they have essentially an unstructured list of rules that do not actually rise to the level of standards. Terms and definitions do not comprise standards, and should not be included as standards with no differentiation from other items. There are no positive statements regarding report content or disclosures, so one has to infer that these were intended as standards.

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405 - APRA Standards

405.1 – The 2012 revision of APRA standards was a significant improvement over both prior versions and CAI’s standards. APRA standards are comprised of:

- Definitions and Scope – This correctly identifies the reserve study as a budget tool during the economic life of the property. It defines the reserve study as a collaboration between the association and reserve preparer, but still uses “levels of service” and “site visit” terminology.
- Standards of Practice
 - Physical Analysis – This defines the process and defines “component”, but still with the “predictable useful life” concept.
 - Financial Analysis – This requires percent funded and provides formula for calculation. It mandates funding goals, which the authors believe should be the responsibility of the association, and establishes funding principles.
- Limitations, Exceptions, and Exclusions
 - Site Visit – This is a list of 14 exclusions.
 - Physical Analysis – This is a list of eight exclusions.
 - Financial Analysis – This is a list of five exclusions.
- Reserve Study Report Contents – This establishes a positive statement that refers to a report contents checklist.
- Glossary of Terms – This includes definitions of 41 terms. (Note: # 14 and # 16.2 provide two different definitions for the same term.)

See the full list of APRA standards at Appendix 4.4.

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Appendix 4.1

Comparison of Standards Chart

Note that “*” denotes “No comparable standard.”

Comparison of Reserve Study Principles

[illegible]

	ICBI	CAI	APRA
3	<p>Additional component considerations:</p> <p>A. Certain components may be excluded if they are not intended to be replaced.</p> <p>B. Building structures are generally referred to as a “lifetime” component and not included in the reserve study.</p> <p>C. Structures should be included in the study if they are being scheduled for substantial repair or replacement.</p> <p>D. Those components not considered lifetime components comprise the items that are generally considered for inclusion in the reserve study.</p> <p>E. Predictable life is not required.</p> <p>F. Major repair/replacement expenditures may be excluded if in operating budget.</p> <p>G. Immaterial items may be excluded.</p>	*	*
3	Calculation principles		
1	Replacement cost – Replacement cost shall include the entire acquisition and installation cost.	*	*
2	Inflation - Projected future component expenditures should include a factor for inflation / deflation.	*	Section II(2)(I) requires inflation
	One-time expenditures – One-time expenditures should be included in the reserve study if applicable.	*	*
	Percent funded – Percent funded calculations are not required, but shall be made on the inflation-adjusted method if included in the report.	Described, not required	No equivalent standard
	Funding Calculation Method – Funding for future expenditures shall be calculated using the cash flow method.	Described, not required	Cash flow or component allowed
4	Service Level Principles		
	Levels of service – Reserve Professionals may provide the following levels of services:		
1	Independent Reserve Study	*	*
2	Reserve Management Plan	*	*
3	Reserve Study Consulting Services	*	*

	ICBI	CAI	APRA
5	Reporting Principles		
1	Long-term capital budgets (reserve studies) can be estimated that reflect the maintenance plan of the organization.	*	*
2	The types of reports that may be issued are: A. Full reserve study with on-site analysis B. Update reserve study no on-site analysis C. Update reserve study no on-site analysis	Levels of service	Levels of service
3	Reserve professionals shall issue a “preparer’s report” that describes the reserve study engagement, summarizes procedures and conclusions, and refers to professional standards applicable to the engagement.	*	*
6	Software Principles		
1	Funding plan calculations using cash flow or component method	*	*
2	Component calculations including: (a) Inflation / deflation (b) One-time (non-repeating) expenditures (c) Percent funded calculations under the three methods in current use (d) Summarized component data	*	*
3	Funding plan calculations including: (a) Interest earnings (b) Income tax calculations (c) Regular periodic reserve assessments (d) Assessments adjustments (e) Special assessments (f) Loans and loan repayments	*	*
4	Summary level financial reports: (a) Statement of Position (b) Cash Flow Funding plan (c) Expenditures for 30-year period (d) Component list in summary format	*	*
5	Additional reports consisting of: (a) Preparer’s Report (b) Disclosures (c) Regulatory Information (d) Component list at detail level (e) Supplemental reports	*	*
6	Timeshare association component calculation by unit	*	*

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Appendix 4.1

Comparison of Standards Chart

Note that “*” denotes “No comparable standard.”

Comparison of Reserve Study Standards

	ICBI	CAI	APRA
100	General Standards		
1	Training and Proficiency	*	*
2	Knowledge - The reserve professional should have general knowledge of the component subject matter and key factors upon which future results depend for a given reserve study engagement.	*	*
3	Independence	Required disclosure of any other relationships	Must disclose conflicts of interest
4	Due professional care	*	*
200	Field Standards		
1	Planning and Supervision	Supervision (not planning) in definition of “Responsible Charge”	*
2	The site analysis shall identify, quantify, and evaluate components included in the reserve study and identify excluded components.	*	Requirement to estimate the general condition of systems and components and their repair, replacement, or restoration needs
3	The component analysis includes assembly of all information for components included in the reserve study, including useful life, remaining life, and replacement cost.	*	Physical Analysis section describes Site Visit procedures
4	Evidence and Documentation	*	*
5	The funding plan should be prepared on the cash flow basis and based on the organization’s funding capability.	*	Either cash flow or component method allowed
	ICBI		

	Reporting Standards	CAI	APRA
300	The Reserve Study Report shall include all report elements as considered necessary for a fair presentation.		
1	Preparer's Report	Report shall conform to the report contents checklist. Must disclose interest and inflation assumptions	Report shall conform to the report contents checklist. Must disclose interest and inflation assumptions. In addition to these requirements, must disclose any deferral or exclusion that has a material impact to the results of the study.
2	Software / Calculation Standards	Report must state if the plan is adequate or inadequate. Must disclose level of service	*
400	Software must be capable of making correct calculations.		
1	Software must be capable of performing the three different methods of calculating percent funded.	*	*
2	Software must be capable of producing all reports required by Generally Accepted Reserve Study Principles.	*	*
3	Software meeting timeshare certification requirements must be capable of tracking interior unit component inventory by unit.	*	*
4		*	*

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Appendix 4.2

ICBI Full Standards

Generally Accepted Reserve Study Principles

General Principles – Section 1

- 1.** Organizations that maintain physical facilities will, over time, need to perform major repairs or replacements to those physical facilities. It is possible to identify, quantify, and evaluate the condition of those facilities that require long-term major repair or replacement.
- 2.** Organizations should establish maintenance plans that provide for both the current and long-term maintenance of physical facilities. Formal maintenance plans generally result in an overall reduction of life cycle costs when compared to a lack of planned maintenance.
- 3.** Reserve studies are long-term capital major repair and replacement budgets that are the financial reflection of the long-term maintenance plan, and are based on assumptions regarding operating maintenance activities and future events. The assumptions are in turn based on a combination of available information and judgment, in which both history and plans play a part.
- 4.** It is considered fiscally prudent to provide for regular periodic interim funding to a separate reserve fund to accumulate the monies necessary for the estimated future expenditures. However, because each organization is unique, only the governing body of such organization can determine how and when they should fund estimated future capital expenditures, subject, however, to provisions contained in governing documents or any federal, state, or other regulatory requirements.
- 5.** Organizations should develop reserve study policies to provide consistent guidelines for the development of and documentation of their reasoning for significant factors considered in their reserve study plan.
- 6.** Reserve studies should be updated on a regular, periodic basis.

Component Principles – Section 2

- 1.** Physical facilities may consist of both real property and personal property.

Real property items for which the organization has maintenance responsibility may consist of:

- A.** Real property specified in the governing documents, whether owned by the organization or owned in common by the members of the organization.
- B.** Real property not specifically identified in the governing documents, whether owned by the organization or owned in common by the members of the organization.
- C.** Real property owned by third parties that is maintained by the organization.

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ICBI Standards

Generally Accepted Reserve Study Principles

Personal property for which the organization has maintenance responsibility may consist of:

- A.** Personal property owned by the organization.
- B.** Personal property owned in common by the members of the organization.
- C.** Personal property owned by third parties that is maintained by the organization.

2. Components have the following general characteristics:

- A.** Physical property that is the maintenance responsibility of the organization.
- B.** Limited useful life (a useful life shorter than the “lifetime” asset, even if considered an “extended life”).
- C.** Material in cost, either individually or as a group.
- D.** Repair or replacement expenditures that represent a significant, non-annual, maintenance expenditure.
- E.** Any additional item required by local codes or statutes.

3. Additional component considerations:

- A.** Certain components may be excluded from the reserve study if they are not intended to be replaced.
- B.** Building structures and certain other very long-lived components are normally considered to be remodeled rather than replaced. In such cases, the structure itself is generally referred to as a “lifetime” component and is generally not included in the reserve study funding plan. These lifetime components establish the outer component replacement life parameter for building sub-components or other components that have a shorter life span.
- C.** Structures and other long-lived components should be included in the reserve study if they are being scheduled for substantial repair or replacement.
- D.** Those components not considered lifetime components comprise the items that are generally considered for inclusion in the reserve study (long-term capital repair and replacement budget).
- E.** Components need not have a predictable life. It is acceptable to provide an “allowance” funding plan for partial or full major repair or replacement expenditures based upon ranges of life or failure estimates, even where future costs cannot be accurately estimated.
- F.** Major repair or replacement expenditures may be excluded from the reserve study if the expenditure history of or the maintenance plan for the subject components indicates that the cyclical timing of expenditures approximates equal annual expenditures and is easily included in the annual operating budget.

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Generally Accepted Reserve Study Principles

G. Immaterial components that otherwise meet the criteria for inclusion in the reserve study may be excluded. Immaterial components that are part of a larger component, or that are purchased as a group of multiple items, should generally be included if, in the aggregate, the expenditure is material. Immaterial components may be included should the organization consider it appropriate, or the organization may include a single “allowance” representing an aggregation of immaterial components.

Calculation Principles – Section 3

- 1. Replacement cost** – Replacement cost shall include the entire acquisition and installation cost of the repair or replacement component.
- 2. Inflation** - Projected future component expenditures should include a factor for inflation / deflation.
- 3. One-time expenditures** – One-time expenditures should be included in the reserve study if applicable.
- 4. Percent funded** – Percent funded calculations are not required. If percent funded calculations are made, they shall be made on the inflation-adjusted method rather than the current cost or future cost method.
- 5. Funding Calculation Method** – Funding for future expenditures shall be calculated using the cash flow method, not the component method. The component method should only be used for regulatory disclosure purposes if required by statute, not for budgetary funding plan purposes.

Service Level Principles – Section 4

Levels of service – Reserve Professionals may provide the following levels of services:

- 1.** Independent Reserve Study
- 2.** Reserve Management Plan
- 3.** Reserve Study Consulting Services

Reporting Principles – Section 5

- 1.** Long-term capital budgets (reserve studies) can be estimated to reflect the maintenance plan of the organization. By their very nature, such future expenditures tend to be large, non-annual items that are not easily includible in the annual budget process of any organization. There are two general types of long-term capital budgets:
 - A.** Capital Expenditure Budget - Such budgets generally consist of a projection of estimated future expenditures without identifying how funding for these expenditures will be achieved.

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Generally Accepted Reserve Study Principles

B. Reserve Study – The reserve study differs from the capital expenditure budget in that it also provides for a long-term funding plan to finance (reserve for) those estimated future expenditures.

2. The types of reports that may be issued are:

- A.** Full reserve study based upon an on-site analysis
- B.** Updated reserve study based upon an on-site analysis
- C.** Updated reserve study without an on-site analysis

3. Reserve professionals shall issue a “preparer’s report” that describes the reserve study engagement, summarizes procedures and conclusions, and refers to professional standards applicable to the engagement. The preparer’s report shall be issued by the reserve study company as opposed to the individual preparer.

Software Principles – Section 6

Software that correctly summarizes the projection to future periods of reserve expenditures and funding is crucial to the accuracy of the reserve study report. Software must have the capability of making the following calculations and reports, as described below:

- 1.** General funding plan calculations using the cash flow method and the component method.
- 2.** Component calculations including: (a) inflation / deflation calculations of future expenditures, (b) one-time (non-repeating) expenditures that include inflation / deflation calculations, (c) percent funded calculations under the three methods in current use, and (d) category or other method of summarizing component data into groups for summary reporting.
- 3.** Funding plan calculations including: (a) interest earnings for future periods, (b) income tax calculations, (c) regular periodic reserve assessments, (d) modifications to periodic reserve assessments, (e) Special Assessments, and (f) loans and loan repayments.
- 4.** Basic financial reports, at a summary level, generally of one or two pages, of: (a) Statement of Current Position, (b) Cash Flow Funding plan in summary format, (c) expenditures for 30-year period in summary format, and (d) component list in summary format.
- 5.** Additional reports consisting of: (a) Preparer’s Report, (b) Disclosures, (c) Regulatory Information (FASB [Financial Accounting Standards Board] Disclosures and any formats required by state or other regulatory agencies), (d) RSI - Required Supplementary Information - Component list at detail level, and (e) Supplemental reports.
- 6.** Timeshare association component calculation by unit.

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ICBI Standards

Interpretations of Generally Accepted Reserve Study Principles

General Principles – Section 1

1-1.1 – Physical facilities deteriorate over time and organizations have the responsibility to maintain certain common area physical facilities. It is possible to identify, quantify, and evaluate the condition of those facilities that require long-term major repair or replacement.

1-2.1 Maintenance plans - Maintenance plans are normally integrated to include both operating maintenance activities and long-term major repair and replacement activities, as the operating maintenance activities can have a significant impact on the long-term major repair and replacement activities. It is the responsibility of the governing body to establish maintenance plans and long-term capital repair and replacement budgets. The governing body may engage outside professionals to assist them in the establishment of both the maintenance plan and the long-term capital repair and replacement budget.

1-3.1 Reserve studies – Reserve studies are a specialized type of long-term capital budget used generally within the community association and timeshare association industries to establish funding plans based on regular member assessments.

1-4.1 – Funding Plan - In the case of a reserve management plan, the organization should adopt the final funding plan. In the case of an independent reserve study, the reserve professional assumes responsibility for recommending a funding plan, which may or may not be adopted by the organization. Organizations should establish separate reserve bank accounts and segregate reserve funds from operating funds. It is generally considered prudent to provide for regular periodic interim funding and to avoid special assessments.

1-5.1 – Reserve study policies should generally address the following items:

- a. Criteria for determining what components are included in the study.
- b. Criteria for determining what components are excluded from the study.
- c. Policy on timing of updates of reserve study.
- d. Funding goals or general guidelines for funding plan.
- e. Reserve cash handling policies and procedures.

1-6.1 - Reserve study updates - Reserve studies should be updated on a regular, periodic basis. Reserve studies that include an on-site analysis should be performed based on age or condition of the facilities, or an unrelated triggering event. Examples are:

- Age – If physical facilities are limited to real estate, updates should occur no less frequently than every five years during the first 15 years after completion of construction, and no less frequently than every three years thereafter. Inclusion of significant personal property with shorter useful lives may require more frequent updates that include an on-site analysis.

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Interpretations of Generally Accepted Reserve Study Principles

- Condition – Significant change in condition, observed deterioration, or accelerated deterioration may indicate that an update is necessary.
- Triggering event – Events unrelated to age or condition, such as developer turnover, unexpected expenditures, significant changes in replacement cost, significantly shorter useful lives than anticipated, discovery of previously omitted components, or significant changes in available funding, may require that an update be prepared.

Reserve study updates that do not include an on-site analysis should be performed annually for years in which no on-site analysis is performed.

Component Principles – Section 2

2-1.1 – Real property components included in reserve study - Real property consists of land and improvements, structures and improvements, and any fixtures or other items attached to land or structures. Townhouse or other attached, single-family home associations often have governing documents specifying that the members have responsibility for exterior building maintenance, yet policies, whether formal or informal, wherein the association has assumed that maintenance responsibility. This is often done to ensure adequate and uniform maintenance of building exteriors. In such a case, the reserve study should reflect the actual maintenance plan, even if it contradicts the governing documents.

2-1.2 Personal property components – Personal property consists of furniture, fixtures, equipment, or other items not attached to real property. Some organizations do not include personal property components in the reserve study under the theory that (1) replacement of personal property components is optional, as their use could be eliminated by changing to use of an outside service, or (2) funding for replacement can be achieved through funding depreciation expense in the operating fund. Both theories are rejected. Unless an actual plan exists to change to an outside service that would eliminate the requirement to replace personal property, such components should be included in the reserve study, as it is the assumption that they will need to be replaced. Funding through the operating fund by funding depreciation expense has two significant weaknesses: (a) most organizations have such volatility in their operating budgets that funding cannot be guaranteed, and (b) funding in the amount of depreciation, a backward-looking system that does not consider inflation, usually results in significant underfunding.

2-2.1 – Component general characteristics - The general component characteristics should identify all components that exist. It is up to the organization to determine if certain of those components should be excluded from the reserve study.

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Interpretations of Generally Accepted Reserve Study Principles

2-2.2 – Component general characteristics - The definition of components as defined by other organizations (CAI and APRA) also include having a predictable life as a characteristic of a component to be included in a reserve study. It is not logical to require “predictable life” as a basic characteristic of a component, as there are some components that require funding that do not fit this definition. Some components can often be characterized as lifetime components, but still have unpredictable, periodic, partial failures that require funding. It is irresponsible to not fund at least some estimate for future expenditures to avoid the risk of leaving the organization in an underfunded position. Providing an estimated “allowance” for repairs of such items, or provide for funding for a percentage of replacement, allows organizations to set aside funds for such components. Examples of components where these types of estimates occur are: concrete block walls; steel fencing; vinyl fencing; wood siding; street substrate; and fairways, greens, and tee boxes of golf courses.

2-2.3 - Component general characteristics - The cost of preparing the reserve study and the cost of amending governing documents are two items that are often routinely included in reserve studies. Such costs should not be included, as they do not represent physical components that are the maintenance responsibility of the organization. Reserve components should represent only significant non-annual maintenance expenses. This concept is also recognized in statutes in certain jurisdictions. Components that were overlooked in prior reserve studies should be added to the reserve funding plan when discovered. Expenditures for such omitted components may be made from the reserve fund in spite of the omission, but would generally require an immediate recalculation of the reserve funding plan.

2-2.4 - Component characteristics - It is the organization’s maintenance plan that drives reserve study funding, but it is possible that items traditionally considered reserve components can be funded through the annual operating budget, if component expenditures represent approximately equal annual expenditures. Example: an organization establishes a 10-year-cycle annual painting program wherein one portion of the organization is painted each year, and in year 11 they start over. Assuming the funding is approximately equal each year, it is not unreasonable to pay this cost out of the operating budget.

2-3.1 – Additional component considerations – One component normally excluded from reserve studies is the replacement of in wall, under slab, and underground utilities, such as water lines, wastewater lines, gas, electrical, and cable wiring. Replacement of these utility items is generally the most expensive component in a condominium-type association, because replacement requires the partial destruction of building structures. Utility lines such as these generally have a life of 40 to 60 years, so they do meet the definition of

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Interpretations of Generally Accepted Reserve Study Principles

components that should be included in a reserve study. Most organizations will probably opt to exclude funding for these components, but their exclusion from the reserve study should be disclosed.

Calculation Principles – Section 3

3-1.1 – Replacement Cost – Replacement cost shall include the purchase cost of the repair or replacement component, including all costs to place the component into service, such as shipping or delivery costs, sales tax, installation cost, cost to remove the component being replaced, and any design or other costs associated with the acquisition and installation of the new component. Some organizations may use their own maintenance staff for both operating and reserve projects. In such cases, the organization should attempt to allocate costs to the reserve fund of staff time for reserve projects. This should include direct labor amounts plus reasonable overhead allocations.

3-2.1 – Inflation – Projected future component expenditures should include a factor for inflation / deflation for the 30-year projection period, or the report shall include a disclosure that inflation / deflation has been omitted. Inflation / deflation rates applied shall be disclosed in the reserve study report. If inflation / deflation is reported differently or omitted for certain time periods, that fact shall be disclosed. Studies show that inflation has occurred for the last 70 years. Inflation affects future replacement costs and should be included for the entire 30-year projection period, with disclosure of inflation rates assumed. Failure to include inflation may result in establishing an unrealistically low assessment structure resulting in underfunding and the possibility of special assessments.

3-3.1 – One time expenditures – One-time expenditures should be included in the reserve study if applicable. Non-recurring expenditures may be projected to correct construction or repair of components that otherwise may not require replacement. Such expenditures should be included in inflation and percent funded calculations if percent funded calculations are made.

3-4.1 – Percent funded calculations – Percent funded calculations are not required, but, if made, should always be made using the inflation adjusted method. Current or future cost percent funded calculations create biased results and over or underfunding as compared to the inflation-adjusted method. Current or future cost methods should be used only where required by regulatory reports, and should never be used to replace a funding plan used for budgetary purposes.

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The current cost method uses current cost at the start date of the funding plan as the denominator in the percent funded calculation, and consequently cannot be projected to future periods with meaningful results. The current cost method, when projected to future periods, always overstates the percent funded. The future cost method uses the future cost at the next replacement date as the denominator in the percent funded calculation, and results in understating percent funded for all dates other than the date a component is replaced. The inflation-adjusted method adjusts the replacement cost used as the denominator in the percent funded calculation annually so that it more accurately reflects cost each year a percent funded calculation is made.

3-5.1 – Cash flow funding method – The cash flow method shall be used for all budgetary reserve study calculations where more than one component exists. The cash flow method calculates funding based on the aggregation of all components projected future expenditures. The cash flow method does not contemplate any specific funding goal.

3-5.2 – Component funding method – The component method should never be used for calculating reserve study funding for budgetary purposes, as it requires assumptions that can be used to manipulate the funding plan, whether purposely or inadvertently. It also requires re-assessing those assumptions annually. The component method should be used only where required for regulatory reporting purposes, and should not replace the cash flow method used for budgetary reporting.

Service Level Principles – Section 4

4-1.1 – Independent Reserve Study – The independent reserve study is what the industry has traditionally perceived as the only form of reserve study through early 2015. The independent reserve study is one prepared by the reserve professional based solely on his or her professional judgment. The reserve professional may receive information from a variety of sources, but ultimately must exercise his or her judgment on all factors affecting the reserve study. The reserve professional may not accept another's judgment in place of his own. The independent reserve professional assumes all responsibility and liability for the accuracy of the reserve study.

4-2.1 – Reserve Management Plan – The reserve professional works with the organization to assist them in determining a reserve management plan, and the reserve study report is the tangible work product of that plan. The reserve management plan engagement includes providing assistance to management by helping them identify key factors, develop

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assumptions, gather information, assemble the information, and develop a financial model so they may consider the results based upon their stated assumptions. The reserve management plan differs significantly from the independent reserve study in that the organization assumes responsibility for the supporting factors and the ultimate accuracy of the reserve study.

4-3.1 – Reserve Study Consulting Services – The reserve professional may engage in services that do not result in the issuance of a report.

Reporting Principles – Section 5

5-1.1 – Reserve Study Reports – Reserve studies differ from other long-term capital budgets in that they have a designated source of funding, and an obligation by the organization to provide for that funding. The primary focus of reserve study reports is the funding plan.

5-2.1 – Types of Reports – There are three types of reports that may be issued:

A. Full reserve study with an on-site analysis – Generally an initial report that includes identification, evaluation, and quantification and measurement of components based upon a site analysis. The full reserve study report may be based on an independent reserve study or a reserve management plan level of service.

B. Update of reserve study with an on-site analysis – An update of a previously issued report that includes an on-site analysis and evaluation of components. This study generally does not require the identification or measurement of components, as the prior study may be relied upon. The update with on-site analysis reserve study report may be based on an independent reserve study or a reserve management plan level of service.

C. Update of reserve study without an on-site analysis – An update of a previously issued report that does not include an on-site analysis, but is rather an “accounting” update of remaining life, replacement cost, and a revision of the funding plan. The update without on-site analysis report may be based on an independent reserve study or a reserve management plan level of service.

5-3.1 – Preparer Report – Reserve professionals shall issue a “preparer’s report” that describes the reserve study engagement, summarizes procedures and conclusions, and refers to professional standards applicable to the engagement. The preparer’s report shall be issued by the reserve study company as opposed to the individual preparer. The preparer’s report shall include the following:

- a) A title that identifies the type of report and level of service.
- b) Identification of the subject matter and the responsible party of the organization.

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- c) A statement that the subject matter is the responsibility of the responsible party (governing board).
- d) A description of the nature and scope of the work performed.
- e) A reference to generally accepted reserve study standards governing the engagement.
- f) A statement that the engagement is less in scope than an independent engineering report and no such opinion is expressed.
- g) The report shall disclose if the on-site analysis or any other significant portion of the financial projection is prepared by another individual or company.
- h) A statement about whether the practitioner is aware of any material modifications that should be made to the subject matter in order for it to be based on the criteria indicated in the report.
- i) A statement about whether or not the software used in preparation of the financial exhibits meets ICBI software standards.
- j) A statement restricting the use of the report to specified parties.
- k) A statement identifying required supplemental information included in the reserve study report.
- l) A statement identifying regulatory information included in the reserve study report.
- m) A statement identifying any supplemental information that is not required but is included in the reserve study report.
- n) A statement that the reserve professional is not responsible for any events subsequent to the date of the report.

5-3.2 – Independent Reserve Study Preparer’s Report – A significant departure from past practice is that the independent reserve professional is required to include a “preparer’s report” as part of the independent reserve study. The preparer’s report summarizes the preparer’s procedures and findings, and is in addition to the narrative disclosures and financial exhibits that comprise the reserve study report.

5-3.3 – Reserve Management Plan Preparer’s Report – The reserve professional issues a “preparer’s report” that summarizes the preparer’s procedures and findings of the reserve management plan, and is in addition to the narrative disclosures and financial exhibits that comprise the reserve study report. This report differs significantly from the independent preparer’s report in that the preparer is commenting on the organization’s reserve study report. The organization is considered to be the “owner” of the report.

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Interpretations of Generally Accepted Reserve Study Principles

Software Principles – Section 6

6 – Software is the technology tool used to interpret the calculation and reporting standards into information that is understandable. Software is the most critical factor in allowing reserve professionals to comply with Generally Accepted Reserve Study Principles, and therefore software must be capable of making correct calculations in accordance with those standards.

6-1.1 – General Calculations, Cash Flow Method – Generally Accepted Reserve Study Principles recognize only the cash flow method as an acceptable method for making funding calculations. The cash flow method aggregates the cost of projected future expenditures for all components, then calculates a revenue “cash flow” to provide sufficient funding to pay the projected expenditures. The cash flow method does not contemplate a funding goal, but is simply a method of calculating funding. Reserve study software must have the capability of making funding calculations on the cash flow method.

6-1.2 – General Calculations, Component Method – The component method, sometimes referred to as the straight line method, calculates future funding requirements at the individual component level. The component method requires an allocation of cash / investments on hand at the time the calculation is made to all components included in the reserve study. Depending on how the cash / investments amounts are allocated, it can result in significant variations in future funding requirements. Because this method is subject to manipulation, it is not considered a reliable method and should not be used for budgetary calculations. Certain states require component method calculations for regulatory purposes. Reserve study software must therefore have the capability of making funding calculations on the component method.

6-2.1 – Component Calculations – Reserve study software must be capable of correctly making all required component calculations:

- a.** Inflation / deflation calculations
- b.** One-time expenditures
- c.** Percent funded calculations at current cost, future cost, and inflation-adjusted cost methods. Budgetary calculations should be made using only the inflation-adjusted cost method. However, software must also be able to calculate both the current and future cost methods, which are required in certain regulatory settings.
- d.** Software must have capability of summarizing component data, either by category or another method to produce summary level reports.

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Interpretations of Generally Accepted Reserve Study Principles

6-3.1 - Funding Plan Calculations – Reserve study software must be capable of correctly making all required funding plan calculations:

- a. Interest earnings calculations
- b. Income tax calculations on investment earnings
- c. Reserve assessments
- d. Ability to modify reserve assessments annually
- e. Special assessments
- f. Loans and loan repayments

6-4.1 – Summary level financial reports - Reserve study software must be capable of producing summary level financial reports. Summary level reports should generally be one or two-page reports only. If the organization has a relatively small component list and detail reports can be presented in a one or two-page format, then it is acceptable to insert detail reports in place of summary reports:

- a. Statement of current position
- b. 30-year cash flow funding schedule
- c. 30-year expenditure summary
- d. Summary component list

6-5.1 – Additional reports – Additional required reports that software must be capable of producing include:

- a. Regulatory reports consisting of FASB (Financial Accounting Standards Board) disclosures for community associations located in the USA, and state-required disclosures for all states in which software is used.
- b. RSI – Required Supplementary Information – Component list at a detail level.
- c. Supplemental reports may consist of any other financial exhibits that the reserve professional wishes to add to his or her report. Supplemental reports may contain any additional information desired by the preparer, but such reports may not contradict the summary level, basic financial reports.

The narrative preparer's report and disclosures may be produced in other software such as Microsoft Word, and collated into a final report that includes the financial reports described above.

6-6.1 – Timeshare software requirements – Because of the unique requirements of timeshare associations, software for timeshare or other fractional associations must be capable of compiling component data by unit for all unit, versus common area, components.

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Generally Accepted Reserve Study Standards ©

General Standards

- 1 - Training and Proficiency – The reserve professional should have a sound understanding of Generally Accepted Reserve Study Principles and Standards for the preparation and presentation of a reserve study.
- 2 - Knowledge - The reserve professional should have general knowledge of the component subject matter and key factors upon which future results depend for a given reserve study engagement.
- 3 - Independence – The reserve professional shall be independent of the organization or shall disclose any relationships that may impair independence.
- 4 - Due Professional Care – The reserve professional shall exercise due professional care and judgment in the performance of procedures and preparation of the reserve study report.

Field Standards

- 1 - Planning and Supervision – All work shall be properly planned and the work of subordinates, if any, supervised. The reserve professional may rely upon an on-site analysis performed by another individual or company if that work is reviewed and evaluated for reasonableness.
- 2 - The site analysis shall identify, quantify, and evaluate components included in the reserve study and identify major components not included in the reserve study funding analysis.
- 3 - The component analysis includes assembly of all information for components included in the reserve study, including useful life, remaining life, and replacement cost.
- 4 - Evidence and Documentation – The reserve professional shall retain documentation to evidence the procedures performed, findings, and conclusions reached.
- 5 – The funding plan should be prepared on the cash flow basis considering the organization’s funding goals and ability to finance the funding requirements. A separate funding plan may be prepared and presented to meet regulatory requirements, but it should not be used in place of a funding plan prepared in accordance with Generally Accepted Reserve Study Principles.

Reporting Standards

- 1 - The Reserve Study Report shall include all report elements as considered necessary for a fair presentation of the relevant material in conformance with Generally Accepted Reserve Study Principles.
- 2 - Preparer’s Report – The reserve professional’s report shall identify the type of engagement, level of service provided, calculation methods used, statement regarding compliance with software standards, and the preparer’s conclusion of the material presented in conformance with Generally Accepted Reserve Study Principles.

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Generally Accepted Reserve Study Standards ©

Software Standards – (ICBI software certification requirements)

- 1 - Software must be capable of making correct calculations of future costs and expenditures including inflation/deflation and one time (non-repeating) expenditures, and future funding amounts including special assessments, interest earned, and income tax calculations in conformance with Generally Accepted Reserve Study Principles.
- 2 - Software must be capable of performing the three different methods of calculating percent funded in conformance with Generally Accepted Reserve Study Principles.
- 3 - Software must be capable of producing all reports required by Generally Accepted Reserve Study Principles in an appropriate format.
- 4 – Software meeting timeshare certification requirements must be capable of tracking interior unit component inventory by unit in addition to tracking non-unit common area components.

4 - Reserve Study Standards

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Interpretations of Generally Accepted Reserve Study Standards ©

General Standards – Section 100

The General Standards are personal in nature and address qualifications of the reserve professional and quality of his or her work. The standards are separate and distinct from those standards related to field work, reporting, software, or ethics.

101- Training and proficiency

101-01 – The reserve professional shall be familiar with ICBI General, Field, Reporting, and Software standards.

101-02 – The reserve professional shall obtain eight hours of continuing education annually in matters related to the performance of reserve studies.

102 - Knowledge

102-01 – The reserve professional shall have a sound understanding of Generally Accepted Reserve Study Principles.

102-02 – The reserve professional shall have, or obtain, technical knowledge regarding the components expected to be encountered in the performance of the reserve study. This knowledge may be gained by prior experience, professional training, research, or consultation with an individual that has expert knowledge with respect to specific components. It is considered acceptable for the reserve professional to rely upon vendors that service such specific components unless the information so learned is contradicted by other sources.

102-03 – The reserve professional shall be familiar with concepts relating to application of inflation as it relates to future capital expenditures and interest earnings of accumulated reserve funds.

103 – Independence

103-01 - The reserve professional shall maintain intellectual honesty and impartiality necessary to reach an unbiased conclusion about the subject matter or assertions.

103.02 – Any relationship that may impair independence shall be disclosed to the client before a reserve study engagement is accepted.

103.03 - Any possible impairment of independence shall be disclosed in the reserve professional's report.

104 – Due Professional Care

104-01 - The exercise of due professional care and professional judgment is an obligation for any reserve professional involved with the engagement to observe each of the general, field, reporting, and software standards.

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104-02 - The exercise of due professional care requires a critical review at every level of supervision of the work performed and judgment exercised by those participating in the engagement, including the preparation of the report.

Field Standards – Section 200

The Field Standards relate to the technical aspects of the reserve study process, including the on-site analysis, component analysis, and preparation of the funding plan.

201 - Planning and Supervision

201-01 – The reserve study shall be adequately planned, including nature of components of the organization, preliminary judgments about materiality, conditions that may require extension or modification of procedures, the type of report and level of service, and the nature of the report to be issued.

201.02 – Planning should include a review of the prior reserve study report, if one was prepared, for completeness of the component list, component pricing, and other information that may be useful in the on-site or component analysis.

201-03 – Subordinates or consultants used during the reserve study process shall be supervised by the reserve professional.

202 – On-Site Analysis

202-01 – The on-site analysis shall be used to identify, quantify, and evaluate condition of all components to be included in the funding analysis and reserve study report. This should include a review of any prior reserve study report. The reserve professional shall remain objective and free from bias in the identification and evaluation of components to be included in the reserve study.

202.02 – The on-site analysis shall also be used to identify components for which the organization has maintenance responsibility that are to be excluded from the funding study. Such components shall be disclosed in the reserve study report.

202.03 – The reserve professional should inquire of the client regarding their reserve policies and maintenance plan, including when components were last replaced, anticipated future expenditures, and actual or projected costs.

202.04 – The reserve professional should inquire regarding the existence of warranties.

202.05 – The reserve professional should consider obtaining a list of significant vendors for possible contact regarding maintenance issues.

202.06 – The reserve professional should make note of any maintenance or safety issues observed during the site analysis and inform the client immediately of any safety issues. This is based on limited visual observation only and is not intended to imply that the reserve professional is an expert in construction code or safety issues or is performing an analysis of safety issues.

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202.07 – A sampling of multiple components is considered adequate; 100% observance of multiple components is not considered necessary unless there is evidence of significant disparity of condition or differences in age.

202.08 – The reserve professional may rely upon software tools and public images (such as Google Earth) in obtaining measurements of selected components.

202.09 - The reserve professional may rely upon photos obtained by drones or photos from other individuals as part of the visual observation for components that are not generally accessible.

202.10 – In an engagement where the on-site analysis is performed by another individual who is not part of the reserve professional's company, the reserve professional may rely upon the photos, counts, and measurements provided by such individual, provided that the information appears to be free of material error. In such an engagement, the reserve professional should consider using tools such as Google Earth satellite and street views to supplement information received from other sources.

203 - Component Analysis

203.01 – The reserve professional should assemble component data obtained during the site analysis and review it for completeness based on the preparer's experience with similar properties / components and comparison to the prior reserve study.

203.02 – The reserve professional should use all available evidence to determine dates components were placed in service, useful life, and remaining life based on observed condition.

203.03 – Component replacement cost may be determined from a variety of sources. The reserve professional should generally use what is considered the most reliable source of information to determine replacement cost. Sources may include:

- Current bids
- Actual cost most recently paid
- Cost based on research
- Vendor estimates
- Preparer's cost database, assuming cost is regularly updated
- Cost estimating manual

204 - Documentation

204.01 – The reserve professional shall retain sufficient documentation for work performed to provide a reasonable basis for the information and amounts included in the reserve study report.

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204.02 - The reserve professional shall retain sufficient documentation to provide evidence of the work performed. This documentation may be included within the reserve study report, or in the reserve professional's supporting files in either an electronic or paper format.

205 – Funding Plan

205.01 – The funding plan shall be prepared on the cash flow method, designed to provide a positive cash balance at all times during the 30-year funding forecast. The component method of calculating future funding should be avoided.

205.02 – The funding plan should include an estimate for inflation / deflation for the entire 30-year forecast period. If different rates are used in different periods, disclosure of the different rates used shall be made.

205.03 – If interest income is included in the funding plan, the estimated interest rate must be disclosed. If different rates are used in different periods, disclosure of the different rates used shall be made.

205.04 – The funding plan shall be prepared to reflect the funding goals and financing ability of the organization.

205.05 – While one or more projections may be prepared for consideration by the governing body during the reserve study process, the final funding plan should reflect the funding plan adopted by the governing board. This is generally the most probable expectation of future events.

Reporting Standards – Section 300

The Reporting Standards address the format and content of the reserve study report, including the preparer's report. The purpose of this section is to provide consistency of reporting, while still allowing non-standard exhibits to be presented as supplemental information.

301 – Reserve Study Report Elements

301.01 - The report shall include the following elements:

- 1) Cover page
- 2) Table of Contents
- 3) Preparer Report (see Section 302 below)
- 4) Statement of Current Position
- 5) 30-year Cash Flow Summary
- 6) 30-year Summary Expenditure Table
- 7) Summary Component List
- 8) Disclosures
- 9) Required Supplemental Information (RSI)
- 10) Regulatory Disclosures
- 11) Supplemental Information (if any)

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301.02 – The Statement of Current Position must include the following data points:

- Name of organization
- Projection period, beginning, and ending date
- Summary description of project, including type and location of organization, number of lots or units (if applicable), construction date (approximate), and summary description of physical property
- Name of company preparing the report, and date of report
- Summary table of components disclosing (normally by category) component name and estimated current cost.
- Percent funded disclosures are optional, but if presented should include the 100 percent funded amount, using the inflation-adjusted method of calculating percent funded, at the start date, and in total only, the estimated net resources available for reserve funding, the percent funded, amount over or under funded, and the amount over or under funded on a per unit or per lot basis (if applicable)
- Summary table of components excluded from the funding plan, or a reference to excluded components listed in “component analysis” disclosures
- Statement regarding special assessments

301.03 – The 30-year Cash Flow Forecast must be prepared on the cash flow basis (component method funding calculations are not appropriate), and disclose by year: beginning balance, assessments and other cash inflows, expenditures, and ending balance. An additional optional disclosure is the amount of assessment increase expressed as a percentage. Percent funded at either the beginning or end of each year may be disclosed, but is not required.

301.04 – The Summary Expenditure Table must disclose, by major component or category, the expenditures from each year of the forecast period. This summary may be limited to 10 years, or may display the entire 30-year period. This table may be displayed on an individual component basis if the number of components is not significantly different from the number of categories.

301.05 – The Summary Component List must disclose, by major component or category, the component or category name, range of estimated useful lives, range of estimated remaining lives, quantity or measurement, estimated current cost, and estimated 100 percent funded amount (optional), using the inflation-adjusted method of calculating percent funded, at the start date. This table may be displayed on an individual component basis if the number of components is not significantly different from the number of categories.

4 - Reserve Study Standards

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Interpretations of Generally Accepted Reserve Study Standards ©

301.06 – Disclosures must include the following:

- On-site Analysis – Description of project, date of on-site analysis, identification of individuals performing on-site analysis, client staff interviewed (if any), procedures performed, discussion of common area and exclusive use common area components, disclosure of sampling used if not all components evaluated, statement that no destructive testing was performed
- Component Analysis – Assembly of components based on the on-site analysis, statement regarding completeness of component list, summary description of how repair or replacements costs were derived, statement regarding reliance on client data and that it is deemed reliable, list of excluded components with reason for exclusion, statement of other exclusions
- Financial Analysis – Description of cash flow method, disclosure of interest rate assumptions used if interest is included in the financial analysis or a statement that interest was not considered, disclosure of inflation rate assumptions used if included in the financial analysis or a statement that inflation was not considered, disclosure of income tax rate assumptions used if included in the financial analysis or a statement that income taxes were not considered, disclosure of annual assessment adjustment factor if applicable, statement that actual results may vary from estimated amounts, disclosure of how estimated beginning balance was calculated, and statement that financial information is not audited
- Significant Assumptions – The summary of significant assumptions should include any assumptions regarding components or financial factors that could affect the reserve study, such as:
 1. Minimum useful life
 2. Minimum replacement cost
 3. Addition of new components due to unexpected deterioration
 4. Preventive maintenance programs
 5. No unusual conditions
 6. Proper construction and installation
 7. Continued use of existing amenities
 8. Adequate property insurance coverage
 9. Regular reserve assessments to be made
 10. Interest rate assumptions
 11. Inflation assumptions

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301.07 – Required Supplemental Information consists of a detail component list including component name, estimated useful life, estimated remaining life, estimated current cost, and (as an option only) estimated 100 percent funded amount, using the inflation adjusted method of calculating percent funded, at the start date. Current or future cost methods of calculating percent funded should not be used in making this calculation for any purpose other than a required regulatory disclosure.

301.08 – Regulatory information includes: (1) summary disclosures as required by the Financial Accounting Standards Board (FASB) if the organization is a community association located within the USA and (2) any disclosures required by state or other statutes.

301.09 – Supplemental information may consist of any other information or exhibits that the preparer may wish to include, as long as such information is adequately disclosed and does not contradict information included elsewhere in the report.

302 – Preparer Report Elements

302.01 – The Preparer Report elements shall consist of:

- a) A title that identifies the type of report and level of service.
- b) Identification of the subject matter and the responsible party of the organization.
- c) A statement that the subject matter is the responsibility of the responsible party (reserve management plan report only).
- d) A description of the nature and scope of the work performed.
- e) A reference to the professional standards governing the engagement.
- f) A statement that the engagement is less in scope than an independent engineering report and no such opinion is expressed.
- g) A disclosure if the on-site analysis or any other significant portion of the financial projection is prepared by another individual or company.
- h) A statement about whether the practitioner is aware of any material modifications that should be made to the subject matter in order for it to be based on the criteria indicated in the report.
- i) A statement about whether or not the software used in preparation of the financial exhibits meets ICBI software standards.
- j) A statement restricting the use of the report to specified parties.
- k) A statement identifying required supplemental information.
- l) A statement identifying supplemental information that is not required.
- m) A statement that the reserve professional is not responsible for any events subsequent to the date of the report.
- n) A statement setting forth the credentials of the individual signing the report on behalf of the reserve study company.

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- o) Signing of report – the report shall be signed in the name of the issuing company, and the name of the primary reserve professional shall also be disclosed.
- p) Dating of the report - the reserve professional's report shall be dated on the date that all work is completed.

Software Standards – Section 400

The Software Standards are necessary to ensure reliability and consistency of calculations.

401 Calculation Standards

401.01 – Software must meet ICBI standards of accurately calculating future costs and expenditures, considering the effects of inflation or deflation, and including one-time, non-repeating expenditures and future funding amounts, including special assessments, interest earned, and income tax calculations.

402 Percent Funded Calculation Standards

402.01 – Software must be able to accurately calculate all three methods of calculating percent funded:

- Current cost method
- Inflation-adjusted cost method
- Future cost method

403 Required Reports

403.01 - Software must be capable of producing all reports required by ICBI in an appropriate format. While exact formats are not dictated, the required reporting elements for each financial exhibit are specified.

404 Timeshare requirements

404.01 - Software meeting timeshare certification requirements must be capable of tracking interior unit component inventory by unit in addition to tracking non-unit common area components.

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4 - Reserve Study Standards

Appendix 4.3

CAI National Reserve Study Standards

General Information

Physical Analysis

Component Inventory

Condition Assessment

Life and Valuation Estimates

Financial Analysis

Fund Status

Funding Plan

Levels of service

I. Full: A Reserve Study in which the following five Reserve Study tasks are performed:

II. Update, With Site Visit/On-Site Review: A Reserve Study update in which the following five Reserve Study tasks are performed:

III. Update, No Site Visit/Off-Site Review: A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:

Terms and Definitions

Reserve Study Required Contents

Disclosures

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4 - Reserve Study Standards

Appendix 4.4

APRA Reserve Study Standards

Part I. Definitions and Scope

- A. A *Reserve Study* is a budgeting tool.
- B. A *Reserve Study* is a collaboration.
- C. A *Reserve Study* is comprised of two parts:
 - 1) *Physical Analysis*:
 - 2) *Financial Analysis*:

Percent Funded or cash balance.

D. A *Reserve Study Site Visit* is performed to determine the *Component Inventory* and the *Component Assessment and Valuation* subject to the limitations, exceptions, and exclusions outlined in Part III.

E. There are three standard Levels of Service

- I. *Full Study*
- II. *Update with Site Visit Study*
- III. *Update without Site Visit Study*

Part II. Standards of Practice

SECTION 1 – *Physical Analysis*

SECTION 2 – *Financial Analysis*

Part III. Limitations, Exceptions, and Exclusions

SECTION 1 – *Site Visit*.

SECTION 2 – *Physical Analysis*.

SECTION 3 – *Financial Analysis*

IV. Reserve Study Report Contents

V. Glossary of Terms

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5 – Reserve Study Scope of Services

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[501 - Type of Engagement](#)

[502 - Level of Service](#)

[503 - Scope of Component Detail](#)

[504 - Request for Proposal](#)

[5.1 - Appendix – Sample RFP](#)

500 - Introduction

500.1 - The scope of the reserve study must be determined at the start of the reserve study engagement. Scope of services relates to types of engagement, level of service, and scope of component detail. These are all matters that should be addressed in an Association's reserve policies. Since few associations have formal reserve policies, the reserve practitioner often ends up making, or closely advising on, the decision regarding level of component detail.

500.2 - The primary factor in determining scope of the reserve study is the Association's intended use of the study. If the primary purpose is for budgetary purposes only, then the scope of component detail is far less important than if the primary purpose is to establish a reserve management plan.

501 - Type of Engagement

501.1 - There are three types of engagement as defined in ICBI standards:

- full study with on-site analysis
- update study with on-site analysis
- update without site analysis

501.2 - The type of engagement is usually a given, as the Association will generally know what type of engagement is required. Requirements for type of reserve study may come from statutes or from governing documents. In addition, the board of directors may make a decision regarding reserve studies that are not mandated by either statute or governing documents. The reserve practitioner may have to provide guidance for associations that need assistance in determining the appropriate type of engagement.

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5 – Reserve Study Scope of Services

501.3 - The Association may be unsure of the appropriate type of engagement for several possible reasons. If the Association has never had a formal reserve study performed, or if it was performed internally by members of the Association, then a full study would normally be recommended. If it has been too long a period of time since the last on-site analysis was performed, then a full study would normally be recommended. “Too long” is subjective matter, but in most instances, five years is the longest time frame that should elapse between on-site analyses.

501.4 - Unless mandated by statute, an update with on-site analysis is usually based on the same time frame as a full study. However, most reserve study companies will insist on a full study as opposed to an update with site analysis, unless that same company performed the prior on-site analysis. Although a matter of judgment, most will generally not accept the measurements from someone outside their own company, unless the lack of reliance is fully disclosed in the reserve study report.

501.5 - The authors believe that type 3 engagements, updates without site analysis, should be prepared annually. This is the best way to insure that the information is both current and accurate. When the time frame between reserve study reports stretches out to three or more years (which is the norm for the majority of associations), accuracy of data, and therefore quality of reports, decreases. See paragraph 5.20 below.

501.6 - Community Associations Institute (CAI) and Association of Professional Reserve Analysts (APRA) standards refer to the types of engagements identified above as “levels of service,” but they are really a type of engagement, and result in a specific type of report. Current CAI and APRA standards do not address the issue of scope of the reserve study other than by identifying level of service.

501.7 – The levels of service as defined in ICBI reserve study standards are:

- Independent study
- Reserve Management Plan
- Consulting

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5 – Reserve Study Scope of Services

502 - Level of Service

502.1 - Since consulting engagements do not normally result in the issuance of a reserve study report, consulting engagements are excluded from this discussion. Independent studies versus reserve management plans are discussed in Chapter 4. Briefly, the independent study results in a report that is solely the work product and property of the reserve practitioner. The reserve practitioner makes all decisions regarding component scope, useful and remaining life, replacement cost, and funding plan parameters in this level of service.

502.2 – In contrast, in a reserve management plan, the engagement is designed as a collaboration between the reserve practitioner and the Association. In this level of service, the reserve practitioner provides his experience and expertise, and Association staff or management provide their first-hand knowledge of the components to create a more complete analysis of the components. The reserve management plan also generally provides software access so that the Association can continue to update and maintain its dynamic reserve plan.

502.3 – While the reserve practitioner may accept the Association's information and judgment regarding useful and remaining life, as well as replacement costs for components, the reserve practitioner has an obligation to include in his or her report any matters in which there is a significant difference of opinion and state the specific reasons for the difference of opinion. Inclusion of such language in the preparer's report is usually such a deterrent to the Association that they will defer to the judgment of the reserve practitioner.

502.4 - The levels described by current CAI and APRA standards effectively describe the level of work that is performed, but not who is performing the work. Possible scenarios are:

- Reserve professional performs independent study.
- Reserve professional performs site analysis and assists Association in preparing study.
- Another credentialed reserve professional performs site analysis, and reserve professional prepares financial analysis and reserve study report.
- Association members or other non-credentialed individuals perform site analysis, and reserve professional prepares financial analysis and reserve study report.
- Association members perform site analysis and update component database and software, and reserve professional prepares financial analysis and reserve study report.

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5 – Reserve Study Scope of Services

502.5 - There are several different reasons why an Association may decide to have a reserve study performed. In states like California, Florida, Nevada, and Utah (amongst others), state statutes may drive your decision to have a reserve study. If that is the case, then cost of the study is likely to be their most important criteria in selecting a reserve study company to perform their study.

502.6 - Other associations want a reserve study to help them determine the appropriate assessment amount for reserves. This typically means the Association has a higher level of interest than just complying with a statute. If that is the case, then cost may not be the most important criteria in making their selection of a reserve study company, although cost is always important.

502.7 - Finally, a much smaller group of associations has embraced the concept of using the reserve study report as a management tool to help them better manage long-term replacement costs. For this group, the most important criteria in selecting a reserve study company is making sure that the reserve study report produces component information at the appropriate level of detail.

502.8 - Theoretically, reserve studies created for any of the three goals described above may produce overall budget information that is very similar. However, the first two will generally not provide sufficient information to allow the reserve study to be used as a management tool.

502.9 – The scope of component detail is critical when performing a reserve management plan level of service. In order to manage reserve components, they must be included in the reserve plan at the same level at which they are to be repaired or replaced, and not divided into too many components, nor combined with other components in a group.

502.10 - An example is that fitness equipment presented as a single line item with a life of eight years and a total current replacement cost of \$80,000 will allow the Association to reach the correct budget assessment of \$10,000 annually. But if the 20 separate fitness equipment items have different remaining lives, it is impossible to accurately update the study as the items are replaced. For such a management plan, the reserve study must contain the 20 separate items. Properly planned use of category and subcategory data management features still allows the 20 items to be “rolled up” into a single line items for reporting purposes, while maintaining the detail to allow management of the process.

Reserve Studies – The Complete Guide

5 – Reserve Study Scope of Services

503 - Scope of Component Detail

503.1 - A “flat” database structure in reserve study software effectively prevents creation of a reserve management plan for large, complex associations, as the level of unclassified component data can simply overwhelm the user of a reserve study report. The software must be able to manage and summarize the data in a manner such that it is easily broken into smaller, recognizable segments that are easy to deal with. This is accomplished by using software that has multiple category and component levels that allow large component databases to be grouped and summarized for reporting purposes while still preserving the detail necessary for individual component management purposes. Very few existing reserve study software platforms meet this criteria. See Chapter 10 for a discussion of software.

503.2 - The Association needs to determine exactly what it wants before it even attempts to request proposals for reserve study services. Simply requesting bids from several reserve practitioners (which is the normal approach of soliciting proposals) is the wrong approach. The right approach is for the Association to establish scope of the study based on their reserve policies, then prepare a RFP (Request For Proposal) that forces the reserve study companies to submit proposals that will meet the Association’s previously established requirements.

503.3 - As technology advances and the homeowners association industry matures, we find that many more associations are requesting two things that few reserve study companies can provide: a reserve study created at the appropriate level of detail to be used as a management tool, AND an internet-based software product that the Association can use to keep their reserve study updated. This doesn’t mean that the Association is completely taking over the process of the reserve study; they are simply performing the update to the component database based upon their maintenance program and information obtained from their accounting system regarding contributions to and expenditures from reserves.

504 - Request for Proposal (RFP)

504.1 - Selecting any vendor for intangible services is always difficult. It seems more difficult for reserve study services because associations usually do not have a good understanding of the process itself, so don’t know how to set the parameters to get the desired results. Setting the scope and using an appropriate RFP process will help associations reach their goals.

Reserve Studies – The Complete Guide

5 – Reserve Study Scope of Services

504.2 - Setting the scope of the reserve study is the first step in selecting a reserve study company. If an Association doesn't know where they want to go, they probably aren't going to get there. After they have determined the scope, they should write their RFP (Request for Proposal). This is important, because if they don't write an RFP that establishes the scope of the reserve study, then by default, they are allowing the scope of the study to be determined by the reserve study company that they select. They may also be making their selection based on inaccurate assumptions, because each reserve study company submitting a proposal may be using different criteria in how they will perform the reserve study.

504.3 - There are six significant factors to consider in this process:

1. Standards under which the services are to be performed
2. Type of engagement
3. Level of services to be performed
4. Scope of component detail
5. Format of report to be received
6. Availability of software to allow the Association to continue to manage the process themselves

504.4 – Standards - See Chapter 4 for a discussion of the three different sets of standards that exist for the reserve study industry. The Association should make a conscious decision as to which standards they believe should apply to their reserve study. As stated in Chapter 4, CAI and APRA standards are fairly similar. ICBI standards are considerably more demanding. A reserve practitioner performing services under ICBI standards is also automatically in compliance with CAI and APRA standards. The reverse is not true. A reserve practitioner performing services under CAI or APRA standards cannot be in compliance with ICBI standards. The authors strongly recommend that ICBI standards be used for all reserve studies.

504.5 – The type of engagement (full study, update with on-site analysis, or update without on-site analysis) must be identified in the RFP. The Association should be making this decision after considering statutory requirements, governing document requirements, age and condition of the Association, and needs based on recently completed or upcoming reserve projects.

504.6 – The level of service (independent study or reserve management plan) is one that should be carefully considered by the Association, and must be specified in the RFP so that the Association receives the services it desires. Levels of service are described above, beginning at

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paragraph 501.7. The authors believe that the reserve management plan will be the future of the reserve study industry, as more associations either suffer bad experiences under an independent study, or simply desire to have more control over their own destiny.

504.7 – The scope of component detail must be identified in the Association’s request for proposal. This may also mean that the Association identifies the categories and subcategories under which components will be grouped, as well as naming conventions that the Association requires for components, if unique.

504.8 – The format of report to be received may be dictated by the Association’s choice of standards to apply, as indicated in paragraph 5.26 above. Neither CAI nor APRA require any specific reporting format, so unless an Association is very specific, it never knows what it’s going to receive. This lack of guidance in reporting under these standards is one of the biggest complaints about reserve study reports in the industry. ICBI standards require a specific reporting format at a summary level, and allow any additional data to be submitted as supplemental information. The authors strongly recommend using ICBI standards and reporting formats, and offer suggestions based on our experience with hundreds of associations for supplemental reports. See the sample report in the appendix of Chapter 9 for suggested formats of supplemental exhibits.

504.9 - Reserve study software - Many associations are now demanding that they be able to manage the reserve data. This means that the reserve study company should be able to provide software. There are only two reserve study software products that have been certified by ICBI as meeting the calculation and reporting requirement of the ICBI. Software should ideally be an internet-based system and should be a full reserve study program, not just the equivalent of an Excel spreadsheet that exists on the web. See Chapter 10 for a discussion of software.

504.10 – Other matters that an Association may consider as part of the RFP process are calculation methods used, inflation and interest rates used, obtaining of references, and requests to see sample reports. While the on-site services performed by different reserve study companies are relatively similar, reserve study companies may have different capabilities in performing the component condition assessment. The Association can establish guidelines regarding the on-site analysis. The authors have experienced many occasions when the Association desired to have one of their members (usually a member of the finance or reserve committee) join the reserve practitioner during the on-site analysis.

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504.11 - What is critical here is making sure the reserve study company follows the scope established by the Association. If the Association is only interested in meeting a statutory requirement or estimating an overall budget amount, the level of component data identified is not a critical factor. If, however, the Association has established a scope in which they want a sufficiently detailed level of component data so that they can use the reserve study as an ongoing management tool - a reserve management plan - then the reserve study company must both understand the goal desired and be prepared to compile the component inventory at the appropriate level of detail.

504.12 - Once an Association has completed the above process, it becomes a matter of sending out their RFP to several reserve study companies. They should be requiring a written proposal that meets the requirements of their RFP, as well as a sample report (which may be in the form of a link to a sample report on the reserve study company's website).

504.13 - Once the Association has received the various proposals, it should read them carefully to understand not only the fee proposal, but also the company's ability to meet the Association's scope requirements in both service and reporting. Any reputable reserve study company will generally welcome the opportunity for an interview by the Board or management regarding their proposal. In our company, we often request Skype interviews to cut down on travel time and still allow a face-to-face interview process. In-person meetings are often not reasonably possible. As an example, many associations will want to interview reserve study companies that do not have representatives who are local to the Association. Given the relative small dollar value of most reserve study contracts, it is not reasonable to request a reserve study company to attend an in-person interview if it involves hours of travel and travel expenses. Skype solves that problem.

504.14 – The Association should ask each reserve study company for references, and follow up on the references. Ask questions like:

- Was the reserve study accurate and helpful?
- Did the reserve study company perform as promised?
- Was the reserve study report prepared in a manner that was easy to understand?
- Was it easy to work with the reserve study company?
- Were any problems taken care of willingly?

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504.15 - Evaluating cost of reserve study services is important, but for too many associations, it is their only consideration. The community association industry might do well to borrow a practice used commonly in the governmental sector, where proposals are broken into two parts: a technical proposal and a fee proposal. Some governmental agencies make an initial selection of “final bidders” based solely on technical proposals, and only then will consider fee proposals from the finalists selected. This prevents placing too much emphasis solely on cost.

504.16 - Following the above guidelines should help the Association in their decision-making process. If it is still difficult to make a decision, they may not have enough information. Obtain more bids if necessary. Call additional references. Talk to each reserve study company and be open about the Association’s concerns. Be wary of any reserve study company that is not willing to discuss these matters. Remember that the reserve study belongs to the Association, and the reserve consultant is simply helping the Association in the process. Selecting a consultant for intangible services can be difficult. The above steps should help clarify the process and increase the likelihood that the Association will be successful in the search for the right reserve study company.

504.17 - Setting the scope of the reserve study is one of the most overlooked aspects of the reserve study process. The lack of doing so is one of the primary reasons that associations may be dissatisfied with the end product reserve study that they receive. Failure to establish the scope of the reserve study is a major disconnect in the reserve study process. The scope of the study also affects the cost that the Association will pay for the study.

504.18 – Most associations do not keep permanent records of reserve expenditures, as those financial records are part of the Association’s annual accounting cycle and are sent to storage annually. Consequently, when the update reserve study is prepared every three to five years, the reserve expenditure detail is not easily available, and management is forced to rely on memory and approximations for dates components were replaced and for replacement cost. This is another one of the major disconnects of the reserve study process.

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5.1 - Appendix – Sample RFP

Note – A MS Word version of this sample RFP document is available for download at <http://www.reservestudyusa.com/downloads>. This RFP form is furnished courtesy of Facilities Advisors, Inc.

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600 - Introduction

600.1 – The physical analysis portion of the reserve study consists of two separate and distinct activities: the on-site analysis and the component analysis. Each of these activities are discussed below. First, let's clarify terminology – CAI and APRA Reserve Study Standards refer to the identification, quantification, and evaluation of components as the “site visit.” The authors believe that term to be so vague and non-descriptive that it defies definition, even though we all think we know what it means. Throughout this guide, we will refer to this activity as the on-site analysis. This correctly identifies that the individual is on site, and is performing an analysis. Whenever we hear the term “site visit,” we wonder who is visiting, what are they doing, and whether this is just a social visit.

600.2 – CAI and APRA standards identify only two parts of the reserve study: the physical analysis and the financial analysis. The various activities performed relating to components are all lumped into the single effort described as “physical analysis.” The authors prefer to identify three different steps in the reserve study:

- The on-site analysis
- The component analysis
- The financial analysis

600.3 - Because the on-site analysis and component analysis may be performed by two different individuals, and at two different times, the authors believe they should actually be considered as two separate parts of the reserve study process. We believe the CAI/APRA approach of considering the on-site and component analyses together as a single physical analysis process does not adequately convey the importance of the component analysis, which is normally where the valuation process generally occurs.

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600.4 – The component analysis itself is normally performed in two separate stages of the reserve study. The component analysis actually begins before the on-site analysis is performed, when the tentative identification of and setting of components scope occurs. This is considered the planning phase of the component evaluation, and it may evolve as the on-site analysis progresses and new information is discovered.

600.5 - The tentative identification of components before the on-site analysis is usually accomplished based on a review of the prior reserve study, inquiry of association management or maintenance staff, and a review of satellite and street-view (where available) photos. From this process, a tentative determination is made about what components are to be included in the reserve study versus those to be excluded.

600.6 - The second step of the component analysis is usually performed after the on-site analysis is performed. At this step, the final condition assessment and valuation of components is performed. Valuation is one of the three skill sets required of reserve practitioners, and it is distinctly different from the evaluation of the condition of components. The valuation process is important enough to justify treating the component analysis as a separate step of the reserve study process, as it matches one of the skill sets required of the reserve practitioners.

600.7 – Crucial to setting the scope of the component detail is knowing the purpose of the reserve study. There are two primary reasons for getting a reserve study done. A budgetary reserve study focuses on dollars and on producing a paper report, and represents the majority of reserve studies prepared. In contrast, the reserve management plan focuses on process, with the reserve study reports being a by-product of the process. Associations performing a reserve management plan are looking for more than a budget; they want a system to manage the reserve process. That system is possible only with the right level of component detail.

600.8 – With the budgetary reserve study, once certain key metrics of the component database are known, the level of component detail is not particularly important. With the reserve management plan, the level of component detail is critical, as it is an ongoing system.

600.9 – The reserve practitioner needs to understand under what set of reserve study standards the Association wishes to operate before beginning the reserve study. The reason is that the differences in definition of component between CAI and APRA standards versus the ICBI standards can have a significant impact on what components are to be either included in or excluded from in the reserve study.

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601 - On-Site Analysis (Site Visit)

601.1 - The purpose of the on-site analysis is to identify, quantify, and evaluate condition of components. A decision must be made as to who will perform this analysis. The standard of care is that the on-site analysis is a “competent, visual observation.” That means that the individual performing this activity should not only be knowledgeable in identifying components, but should also be able to at least reasonably evaluate component condition. In most cases, the Association does not possess that expertise in-house, so it retains a reserve study company to perform the reserve study.

601.2 – As stated in paragraph 600.5 above, the tentative identification of components before the on-site analysis is usually accomplished based on a review of the prior reserve study, inquiry of association management or maintenance staff, and a review of satellite and street-view (where available) photos. From this process, a tentative determination is made about what components are to be included in the reserve study versus those to be excluded. During the on-site analysis, the reserve practitioner may also have access to plans, and generally will be able to make inquiries of Association maintenance staff. This often helps to identify additional components that were not identified in the initial, tentative process.

601.3 - The on-site analysis is the most subjective area of the reserve study, as the component condition assessment and subsequent component analysis involves evaluating current condition, effective age or remaining life, and valuation or replacement cost. It is quite possible that different individuals may recommend different repair alternatives. Consequently, there will generally be different results generated by different reserve study practitioners who examine the same underlying components. This is based on the practitioner’s judgment, and can only be legitimately criticized if the proper level of care is not exercised.

601.4 – Of particular concern are those components that are not able to be physically observed during the on-site analysis. This is often the case with certain elevator equipment, or exhaust fans and HVAC equipment located in inaccessible portions of buildings. In addition, the in wall, under slab, and underground utilities cannot be observed. However, all items described here have a limited useful life and, as they are significant cost components for which the Association has maintenance responsibility, generally should be considered components to be included in the reserve study.

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601.5 – Under CAI and APRA standards, the utilities described above are virtually always excluded from reserve studies under the “predictable remaining life” definition of components under the theory that they are lifetime components and cannot have a predictable remaining life until they begin to fail. The authors disagree with that position, as it automatically forces associations into special assessment positions. Also, the authors have personally worked with 10 associations that either have replaced or are in the process of replacing these exact components.

601.6 - ICBI standards do not contain a predictable remaining life definition and, since the estimated life range of such components is generally known, require either inclusion of these components or a statement that they have been excluded. It should be noted that numerous engineering and contractor experts have stated in court testimony that such components generally have a useful life of 40 to 60 years. Although this range is beyond the normal 30- year funding window, it does not exclude such components from being included in a funding plan; it simply means they have a longer life.

601.7 – It is worth pointing out that the authors have never seen a reserve study done by any other reserve study company that includes such components, unless the Association had already made a decision that they needed to be replaced or was already in the process of replacing such components. Also, we have only seen a single instance where a reserve study disclosed that such utility components were excluded.

601.8 - The authors believe that utility components should either be included in the reserve study or else disclosed as an excluded component. Most associations recognize that they can’t afford to include such components unless they start when the buildings are new. These are the single most expensive components to replace, and can be funded on a 50-year schedule, but can’t be included in a normal assessment rate schedule when you have 20 or fewer years remaining. This happens because the components were never previously identified for inclusion in the reserve study. The result is that replacement of utility components is virtually always paid for by special assessments.

601.9 - The components included in this group generally are:

- 1) Domestic water systems
- 2) Plumbing components of fire suppression systems
- 3) Waste water systems

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- 4) Domestic electrical systems
- 5) Natural gas systems

These are part of the continuous use systems that are particularly vulnerable in any Association because there generally is no alternative to provide service when they fail. If these components are not included in the funding plan, the report should include a statement disclosing to readers of the report that utilities are excluded from the study. The purpose of this statement is to disclose to members that there are known components that are not considered to be within the scope of the reserve study.

601.10 – Other means of identifying components may include reviewing warranty records, service agreements, and repair records. It is not unusual for associations to pay for reserve expenditures from their operating fund when there is sufficient money in the operating fund to do so. Associations will often view this as a way to both avoid having excess operating funds at year-end as well as reduce demands on the reserve fund.

601.11 – Quantification of components is accomplished in any number of ways. The prior reserve study should provide information on quantities of components. For some components, a manual count of items will be necessary. For others, a manual measurement will be required. Others may be quantified from plans or by using computer tools such as Google Earth.

601.12 – The evaluation of condition of the component can also be determined in several ways. One of the factors that can make it difficult to evaluate condition of components in relation to a reserve study funding plan is that components do not deteriorate in a straight line, yet funding plans are generally designed in a straight line manner. What this means is that the condition assessment, particularly the determination of remaining life, may not reflect actual physical condition. While that may seem perplexing to some, it is based on how components deteriorate over time.

601.13 – As an example, an asphalt shingle roof with a 30-year useful life may look nearly as pristine at age 20 as it did at year two. The reason is that 80% of the deterioration may occur in the last 20% of the roof's life, while in the first 80% of the roof's life there was virtually no visible deterioration. It becomes very important to know the actual age of the roof to obtain a better understanding of where the roof might actually be in its life cycle. Asphalt often exhibits

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similar time decay characteristics as described above. While the concept of rapid decline in the last few years of a component's life is true for many components, it is important to note that each component has a different life cycle.

601.14 – What this means is that a component that appears to be in very good condition in one on-site analysis cycle may be completely beyond repair just a few years later in the next on-site analysis cycle. The reserve practitioner needs to be familiar with time decay factors and consider actual age as part of the process in evaluating condition and determining remaining useful life.

601.15 – It is not uncommon for the reserve practitioner to discover that many of the components scheduled for replacement based on the prior reserve study report have not been replaced when performing an update in-site analysis. The reason is that many components remain perfectly serviceable well beyond their original estimated life. The most appropriate thing to do here is to ask Association staff or management when they actually intend to replace the component. In the component database, these components should normally be assigned an adjusted extended life for the current cycle, and leave the original useful life estimate intact for the next cycle. Or, it may be appropriate to modify the useful life. This is a matter of actual facts and judgment of the reserve practitioner.

601.16 – Another factor to consider is that many components will be replaced by associations well before their functional life cycle is ended, simply for aesthetic reasons. Curb appeal is important, so many associations establish useful lives for reserve study purposes that do not reflect the actual useful life of a component. The reserve practitioner must inquire of Association management about their actual intent to replace.

601.17 – The authors have also observed that some components will fail to last as long as estimated in their original useful life estimate. The reserve practitioner should attempt to discover why this happened. In some cases, the original useful life estimate was just incorrect. In other cases, premature failure could be caused by local weather or other conditions. In still other cases, it could be caused by improper maintenance or use, or from excessive use for which the item was never designed. In any event, this will impact the decision regarding estimated useful life of this component and its replacement.

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601.18 – The authors have several times taken on new Association clients who inform us during our discussions regarding components that the prior reserve study (not prepared by us) contained significant errors on estimated remaining life or estimated replacement cost. We have had it explained to us that the prior reserve consultant never inquired about their actual plans, and so the reserve study estimates failed to reflect their actual maintenance plan. It is appropriate to make sure that the current reserve study reflects an Association’s actual plan. In some cases, the Association needs to be educated regarding why their plan should be modified.

601.19 – In some cases, the planned replacement for a component will be different from the existing component, such as replacing wood decks with a composite material that requires less maintenance but carries a higher initial cost. The replacement component is the one that should be reflected in the reserve study, because that is how the money will be spent. We have had questions from a number of board members over the years regarding this issue. They believe that the report should reflect the existing component, because that is what they are replacing. We normally try to resolve this by identifying the component as “deck surface” rather than “wood deck” or composite material deck”, and then explain the different replacement material in the detail notes section for that component.

601.20 - The factors identified in paragraphs 6.24 through 6.28 above require significant interaction with Association staff or management to be able to determine what remaining life and cost should be reflected in the component database. This is the reason our company strongly recommends the reserve management plan approach to preparing reserve studies. We also see the absence of it as one of the primary reasons for failure in the ‘independent study,’ because the reserve practitioners tend to have minimal interaction with their clients and rely far more heavily on their own experience and expertise. That can result in a reserve study that is useful only for setting a reasonable reserve assessment rate, but which cannot be used as a management tool.

601.21 - In certain instances, it is acceptable for the reserve practitioner to evaluate only a sampling of multiple components. This will normally depend upon the overall quantity as well as the materiality of component. If it is a high-dollar component and there are relatively few of them, sampling should generally not be used. If the component is a low-dollar item with a relatively large overall quantity, then sampling should be used.

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601.22 – In general, it is normal practice to take photos during the on-site analysis to provide documentation of the component inventory. In some instances, it may not be possible to obtain photos due to inaccessible areas. The reserve professional may rely upon photos obtained by drones or photos from other individuals as part of the visual observation for components that are not generally accessible. In some instances, “stock photos” obtained from manufacturers may be used to document the nature of the component.

601.23 - The reserve professional should assemble component data obtained during the site analysis and review it for completeness based on the practitioner’s experience with similar properties/components and comparison to the prior reserve study.

601.24 - The reserve study consists of a number of estimates and assumptions. All of them are important, but one stands out as having significant impact upon the calculation of needed reserves: remaining life of components. As an example, if your previous reserve study indicated that the remaining life of the roof was 15 years and it is now determined to be only 10 years, then you have much less time to accumulate the needed funds, which translates into higher assessments. That is considered a change in estimated remaining life.

601.25 - The reserve professional should use all available evidence to determine dates components were placed in service, useful life, and remaining life based on observed condition.

601.26 - So how is remaining life calculated? First of all, recognize that it is an estimate. Unless the major repair or replacement is imminent and the date is known, the remaining life is an estimate. The actual remaining life may be shorter or longer than what is estimated in the reserve study. In more than 30 years of reserve study experience, we have seen components that have lasted only a small percentage of their original estimated life, and others that have lasted multiples of their original estimated life. One of the purposes of the reserve study is to attempt to predict the remaining life as closely as possible.

601.27 - When a component is placed into service, the first estimate of remaining life is likely to be based upon a warranty, contractor estimates, cost estimating database, or common industry practice. A practitioner may, in fact, get different estimated lives from each of these sources. This means he or she must make a decision as to which estimated life to choose to use for the reserve study. This life is known as the useful life, and the period of time is known as the normal life cycle or replacement cycle, as virtually all components are anticipated to deteriorate over a period of time known as their normal life cycle.

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602 - Component Analysis

602.1 - As time progresses, the condition of the component will change, and perhaps not in accordance with the original estimated life. This again is normal, as components rarely deteriorate exactly in accordance with the estimated normal life cycle. That means the estimated remaining life may be adjusted in each reserve study after the component is placed into service. While that's not likely, it can occur. One of the primary reasons for performing the component condition assessment as part of a reserve study site visit is to determine the estimated remaining life of each component. Again, this may be accomplished in several different ways.

602.2 – The reserve practitioner inquires of Association management or maintenance staff, or support vendors or contractors, what their future plans are for major repair or replacement of each significant component. As an example, it does little good for the reserve practitioner to assume that a roof with an estimated original life of 40 years that is now 15 years old, and therefore should have a remaining life of 25 years, is going to reach its full lifecycle when the Association already knows that they have significant issues due to either product failure or improper installation, and that they are estimating they'll need to replace the roof within the next 10 years.

602.3 – The practitioner should ask about the Association's current maintenance activities and any factors, such as excessive use or extreme wear and tear, that exist that may impact the remaining life of each significant component.

602.4 - Based on his or her own observations and experience, and with knowledge of when the component was placed into service, the reserve practitioner evaluates the condition and forms his or her own estimate as to the remaining life of each significant component.

602.5 – He or she inquires about warranties and product quality, which is not always evident from visual observation.

602.6 - Clearly, judgment comes into play in making the remaining life decision based on any of the methods above. Since the reserve funding requirement is a function of the aggregate remaining lives of all components combined, the more accurate the remaining life estimate,

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the more accurate the funding plan will be. For those associations that use a baseline funding goal, any significant reductions in estimated remaining lives can plunge them into special assessment territory. That is one of the reasons why our reserve study company continually recommends against using a baseline funding plan. It simply leaves an Association no room for significant changes in remaining life or replacement cost.

602.7 – There have been several times where the authors have gone on site for the first on-site analysis of a new Association client and, during discussion with Association management and maintenance staff, are told that they intend to repave the streets (or pick any other reserve activity) simply because the prior reserve study says now is the time to do it. That's putting the cart before the horse. The reserve study should be based on the Association's maintenance plan, which should be based upon operating maintenance activities and the physical condition of the components. While the reserve study may be the financial representation of a maintenance plan, it is not itself a maintenance plan. Don't confuse the two.

602.8 – Component replacement cost may be determined from a variety of sources. The reserve professional should generally use what is considered the most reliable source of information to determine replacement cost. Sources may include:

- Current bids
- Actual cost most recently paid
- Cost based on research
- Vendor estimates
- Practitioner's cost database, assuming cost is regularly updated
- Cost estimating manual

602.9 – Future cost, by definition, cannot be known. It is a projection based on estimated current cost and the effects of inflation. Current estimated cost can be derived from any of the sources identified above. In certain cases, current cost cannot be estimated. This is particularly true of custom-built components. In that case, an appropriate method is to use last known cost and apply the effects of inflation that are estimated to have occurred since the component was placed into service.

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602.10 - The Association can improve the reserve study process by maintaining permanent records of the common area components to provide information on dates placed in service, costs, warranties, repair or replacement work performed, and vendors that provided the service. This is a necessary part of a maintenance plan. The maintenance plan should identify when the next work is to be performed, which determines the remaining life. In the absence of that knowledge, it is customary to estimate remaining life based on date placed in service, current age, and an assumption of a normal life span.

602.11 – The reserve practitioner is normally a generalist in the reserve study process, and may not possess the specialty knowledge required to accurately assess certain components. Consequently, it is occasionally necessary to obtain information or reports from experts regarding certain components. Examples of components where we normally see or request expert opinions are roads, dams, ponds or lakes, and bridges.

602.12 - Small streets and drives are normally not an issue, but when associations are maintaining many miles of roads, it is generally wise to obtain a pavement study from a qualified engineering company with experience in paved surfaces. Also recognize that there are differences in road maintenance activities in different parts of the country, and different pricing factors.

602.13 – Most dams are required to be registered with governmental agencies and receive periodic safety inspections. Most are also required to have an engineering report.

602.14 – Ponds, lakes, and retention and detention ponds all have different characteristics and different maintenance issues. Few associations will go to the expense of hiring a limnologist (an expert in inland water bodies), but these professionals have the expertise to evaluate water features. In the authors' experience of working with limnologists, we've found that they are generally disappointed that they are not hired earlier to help prevent problems, and are usually hired instead to fix problems after they happen.

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6.1.1 – Appendix - ICBI Component Principles

1. Physical facilities may consist of both real property and personal property.

Real property items for which the organization has maintenance responsibility may consist of:

- A. Real property specified in the governing documents, whether owned by the organization or owned in common by the members of the organization.
- B. Real property not specifically identified in the governing documents, whether owned by the organization or owned in common by the members of the organization.
- C. Real property owned by third parties that is maintained by the organization.

Personal property for which the organization has maintenance responsibility may consist of:

- A. Personal property owned by the organization.
- B. Personal property owned in common by the members of the organization.
- C. Personal property owned by third parties that is maintained by the organization.

2. Components have the following general characteristics:
 - A. Physical property that is the maintenance responsibility of the organization.
 - B. Limited useful life (a useful life shorter than the “lifetime” asset, even if considered an “extended life”).
 - C. Material in cost, either individually or as a group.
 - D. Repair or replacement expenditures represent a significant, non-annual maintenance expenditure.
 - E. Any additional item required by local codes or statutes.
3. Additional component considerations:
 - A. Certain components may be excluded from the reserve study if they are not intended to be replaced.
 - B. Building structures and certain other very long-lived components are normally considered to be remodeled rather than replaced. In such cases, the structure itself is generally referred to as a “lifetime” component and is generally not included in the reserve study funding plan. These lifetime components establish the outer component replacement life parameter for building subcomponents or other components that have a shorter life span.
 - C. Structures and other long-lived components should be included in the reserve study if they are being scheduled for substantial repair or replacement.
 - D. Those components not considered lifetime components comprise the items that are generally considered for inclusion in the reserve study (long-term capital repair and replacement budget).

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6.1.1 – Appendix - ICBI Component Principles

- E.** Components need not have a predictable life. It is acceptable to provide an “allowance” funding plan for partial or full major repair or replacement expenditures based upon ranges of life or failure estimates, even where future costs cannot be accurately estimated.
- F.** Major repair or replacement expenditures may be excluded from the reserve study if the expenditure history of or the maintenance plan for the subject components indicates that the cyclical timing of expenditures approximates equal annual expenditures and if they are easily included in the annual operating budget.
- G.** Immaterial components that otherwise meet the criteria for inclusion in the reserve study may be excluded. Immaterial components that are part of a larger component, or that are purchased as a group of multiple items, should generally be included if, in the aggregate, the expenditure is material. Immaterial components may be included should the organization consider it appropriate, or the organization may include a single “allowance” representing an aggregation of immaterial components.

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6.1.2 – Appendix - ICBI Interpretations of Component Principles

2-1.1 – Real property components included in reserve study - Real property consists of land and improvements, structures and improvements, and any fixtures or other items attached to land or structures. Townhouse or other attached single-family home associations often have governing documents specifying that the members have responsibility for exterior building maintenance, yet policies, whether formal or informal, wherein the association has assumed that maintenance responsibility. This is often done to ensure adequate and uniform maintenance of building exteriors. In such a case, the reserve study should reflect the actual maintenance plan, even if it contradicts the governing documents.

2-1.2 Personal property components – Personal property consists of furniture, fixtures, equipment, or other items not attached to real property. Some organizations do not include personal property components in the reserve study under the theory that (1) replacement of personal property components is optional, as their use could be eliminated by changing to use of an outside service, or (2) funding for replacement can be achieved through funding depreciation expense in the operating fund.

Both theories are rejected. Unless an actual plan exists to change to an outside service that would eliminate the requirement to replace personal property, such components should be included in the reserve study, as it is the assumption that they will need to be replaced.

Funding through the operating fund by funding depreciation expense has two significant weaknesses: (a) most organizations have such volatility in their operating budgets that funding cannot be guaranteed, and (b) funding in the amount of depreciation, a backward-looking system that does not consider inflation, usually results in significant underfunding.

2-2.1 – Component general characteristics - The general component characteristics should identify all components that exist. It is up to the organization to determine if certain of those components should be excluded from the reserve study.

2-2.2 – Component general characteristics - The definition of components as defined by other organizations (CAI and APRA) also include having a predictable life as a characteristic of a component to be included in a reserve study. It is not logical to require “predictable life” as a basic characteristic of a component, as there are some components that require funding that do not fit this definition. Some components can often be characterized as lifetime components, but still have unpredictable, periodic, partial failures that require funding. It is irresponsible to not fund at least some estimate for future expenditures to avoid the risk of leaving the organization in an underfunded position. Providing an estimated “allowance” for repairs of such items, or providing funding for a percentage of replacement, allows organizations to set aside funds for such components. Examples of components where these types of estimates occur are: concrete block walls; steel fencing; vinyl fencing; wood siding; street substrate; and fairways, greens, and tee boxes of golf courses.

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6.1.2 – Appendix - ICBI Interpretations of Component Principles

2-2.3 - Component general characteristics - The cost of preparing the reserve study and the cost of amending governing documents are two items that are often routinely included in reserve studies. Such costs should not be included, as they do not represent physical components that are the maintenance responsibility of the organization. Reserve components should represent only significant non-annual maintenance expenses. This concept is also recognized in statutes in certain jurisdictions.

Components that were overlooked in prior reserve studies should be added to the reserve funding plan when discovered. Expenditures for such omitted components may be made from the reserve fund in spite of the omission, but would generally require an immediate recalculation of the reserve funding plan.

2-2.4 - Component characteristics - It is the organization's maintenance plan that drives reserve study funding, but it is possible that items traditionally considered to be reserve components can be funded through the annual operating budget, if component expenditures represent approximately equal annual expenditures. Example: an organization establishes a 10-year-cycle annual painting program wherein one portion of the organization is painted each year, and in year 11 they start over. Assuming the funding is approximately equal each year, it is not unreasonable to pay this cost out of the operating budget.

2-3.1 – Additional component considerations – One component normally excluded from reserve studies is the replacement of in wall, under slab, and underground utilities, such as water lines, wastewater lines, gas, electrical, and cable wiring. Replacement of these utility items is generally the most expensive component in a condominium-type association, because replacement requires the partial destruction of building structures. Utility lines such as these generally have a life of 40 to 60 years, so they do meet the definition of components that should be included in a reserve study. Most organizations will probably opt to exclude funding for these components, but their exclusion from the reserve study should be disclosed.

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6.1.3 – Appendix - ICBI Field Standards

- 1 - **Planning and Supervision** – All work shall be properly planned and the work of subordinates, if any, supervised. The reserve professional may rely upon an on-site analysis performed by another individual or company if that work is reviewed and evaluated for reasonableness.
- 2 - The site analysis shall identify, quantify, and evaluate components included in the reserve study and identify major components not included in the reserve study funding analysis.
- 3 - The component analysis includes assembly of all information for components included in the reserve study, including useful life, remaining life, and replacement cost.
- 4 - Evidence and Documentation – The reserve professional shall retain documentation to evidence the procedures performed, findings, and conclusions reached.
- 5 – The funding plan should be prepared on the cash flow basis considering the organization's funding goals and ability to finance the funding requirements. A separate funding plan may be prepared and presented to meet regulatory requirements, but it should not be used in place of a funding plan prepared in accordance with Generally Accepted Reserve Study Principles.

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61.4 – Appendix - ICBI Interpretations of Field Standards

The Field Standards relate to the technical aspects of the reserve study process, including the on-site analysis, component analysis, and preparation of the funding plan.

201 - Planning and Supervision

201-01 – The reserve study shall be adequately planned, including nature of components of the organization, preliminary judgments about materiality, conditions that may require extension or modification of procedures, the type of report and level of service, and the nature of the report to be issued.

201.02 – Planning should include a review of the prior reserve study report, if one was prepared, for completeness of the component list, component pricing, and other information that may be useful in the on-site or component analysis.

201-03 – Subordinates or consultants used during the reserve study process shall be supervised by the reserve professional.

202 – On-Site Analysis

202-01 – The on-site analysis shall be used to identify, quantify, and evaluate condition of all components to be included in the funding analysis and reserve study report. This should include a review of any prior reserve study report. The reserve professional shall remain objective and free from bias in the identification and evaluation of components to be included in the reserve study.

202.02 – The on-site analysis shall also be used to identify components for which the organization has maintenance responsibility that are to be excluded from the funding study. Such components shall be disclosed in the reserve study report.

202.03 – The reserve professional should inquire of the client regarding their reserve policies and maintenance plan, including when components were last replaced, anticipated future expenditures, and actual or projected costs.

202.04 – The reserve professional should inquire regarding the existence of warranties.

202.05 – The reserve professional should consider obtaining a list of significant vendors for possible contact regarding maintenance issues.

202.06 – The reserve professional should make note of any maintenance or safety issues observed during the site analysis and inform the client immediately of any safety issues. This is based on limited visual observation only and is not intended to imply that the reserve professional is an expert in construction code or safety issues or is performing an analysis of safety issues.

202.07 – A sampling of multiple components is considered adequate; 100% observance of multiple components is not considered necessary unless there is evidence of significant disparity of condition or differences in age.

202.08 – The reserve professional may rely upon software tools and public images (such as Google Earth) in obtaining measurements of selected components.

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202.09 - The reserve professional may rely upon photos obtained by drones or photos from other individuals as part of the visual observation for components that are not generally accessible.

202.10 – In an engagement where the on-site analysis is performed by another individual that is not part of the reserve professional's company, the reserve professional may rely upon the photos, counts, and measurements provided by such individual, provided that the information appears to be free of material error. In such an engagement, the reserve professional should consider using tools such as Google Earth satellite and street views to supplement information received from other sources.

203 - Component Analysis

203.01 – The reserve professional should assemble component data obtained during the site analysis and review it for completeness based on the preparer's experience with similar properties/components and comparison to the prior reserve study.

203.02 – The reserve professional should use all available evidence to determine dates components were placed in service, useful life, and remaining life based on observed condition.

203.03 – Component replacement cost may be determined from a variety of sources. The reserve professional should generally use what is considered the most reliable source of information to determine replacement cost. Sources may include:

- Current bids
- Actual cost most recently paid
- Cost based on research
- Vendor estimates
- Preparer's cost database, assuming cost is regularly updated
- Cost estimating manual

204 - Documentation

204.01 – The reserve professional shall retain sufficient documentation for work performed to provide a reasonable basis for the information and amounts included in the reserve study report.

204.02 - The reserve professional shall retain sufficient documentation to provide evidence of the work performed. This documentation may be included within the reserve study report, or in the reserve professional's supporting files in either an electronic or paper format.

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[700 - Introduction to Funding Methods and Goals](#)

[701 - Funding Methods - Component vs. Cash Flow Method](#)

[702 - Funding Goals](#)

- **[Baseline Funding](#)**
- **[Threshold Funding](#)**
- **[Full Funding](#)**

[703 - Regular Assessments](#)

[704 - Special Assessments](#)

[705 – Loans in Funding Plans](#)

[706 - Interest and Inflation](#)

700 - Introduction to Funding Methods and Goals

700.1 - This chapter discusses funding methods, funding goals, the mechanics of creating a funding plan, and the use of bank loans and special assessments to meet unique funding requirements that can't be accomplished using a more structured annual or monthly funding approach. There has been much confusion about funding plan methods and goals. Part of this confusion is due to the failure to distinguish the difference between methods versus goals. Another issue is the inconsistent terminology used in the industry.

700.2 - As with many other areas concerning reserve studies, unlearning some of the commonly accepted thoughts and terminology is the starting point. The authors believe that the initial CAI and APRA National Reserve Study Standards were not fully developed, particularly with respect to financial calculations and reporting. The CAI and APRA standards were developed primarily by the engineering firms that dominated the early stages of the reserve study industry. These firms certainly possessed the technical skills for the on-site analysis, but the standards developed do not display any evidence of training in financial theory and calculations. The reports generated under these standards make that obvious even today, nearly 20 years later. This is a significant issue, because reserve studies are financial reports.

700.3 – It is believed that part of the guidance used in the initial CAI and APRA standards development process came from the newly released (at that time) AICPA Audit and Accounting Guide for Common Interest Realty Associations. Reserve funding concepts in that guide were generated primarily from a few CPA firms that relied solely on the component calculation method.

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Apparently they never conceived of or evolved to the cash flow method. Unfortunately, those component method calculations are still with us today, and have even been inserted into law in both Florida and California (the states containing the most associations).

700.4 – The authors will state our position on the component method here, and repeat our position on multiple instances throughout this book, both because it is so important and in the belief that repetition will drive the point home. **The component calculation method should never be used.** The component method of calculating reserves is a primitive, archaic concept that cannot be used effectively when more than a single component exists. The reserve study and community association industries would be better served if this method were completely banished from any discussions about reserve studies. Having said that, we know that it is frequently used. In an attempt to educate those who use it, we will demonstrate below why this method is flawed and should not be used.

701 - Funding Methods

701.1 - Contrary to the advertising representations of one reserve study software program that claims to include “12 different calculation methods,” there are, in fact, only two funding methods: the component method and the cash flow method. Anything else is either a variation of one of these two methods, or else represents funding goals that are misidentified as methods.

701.2 – In an effort to clear up another misconception, we want to state that percent funded is not a calculation method. Percent funded is effectively an “after-market product” that is applied to a funding analysis that attempts to measure “where you are” versus “where you should be.” Percent funded has limited value, and overreliance on this concept has not only caused significant problems for some associations, but has created widespread misunderstanding throughout the industry. Chapter 8 provides a full discussion of percent funded and demonstrates both its strengths and weaknesses.

701.3 – The component method of calculating funding plans was used extensively in the early days of reserve studies. The component method of calculating reserve funding plans appears in early literature regarding reserve studies, dating back to the 1970s and 1980s. This is understandable given that many of these early calculations were made manually on green columnar paper, which was the standard at that time. Computers didn’t really come into general use until the mid-1980s, when hard drives became a standard part of microcomputers and spreadsheet programs such as

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Component Method

Visicalc and Lotus 123 were developed. Excel was still many years in the future. With the development of spreadsheets, it became easier to calculate that a component with a life of 10 years and a replacement cost of \$10,000 should be funded at the rate of \$1,000 per year, thus accumulating \$10,000 at the end of 10 years. One then simply totaled the results for all components.

701.4 – There are three factors required for the calculation of required funding under the component method: (1) available funds, (2) replacement cost, and (3) remaining life of each component. An example of how this works is seen below:

Exhibit 7 - 1

#	Component	Replacement Cost	Life	Estimated Annual Contribution	Available Funds	Required Funds	Remaining Life	Annual Contribution
1	Painting	\$ 10,000	10	\$ 1,000	\$ 4,000	\$ 6,000	6	\$ 1,000
2	Painting	\$ 10,000	10	\$ 1,000	\$ 2,000	\$ 8,000	6	\$ 1,333

Item 1 in Exhibit 7-1 above calculates funding of \$1,000 per year for the remaining life of six years based on the assumption that the correct funding of \$1,000 annually was made for the first four years. Item 2 in Exhibit 7-1 above calculates funding of \$1,333 per year for the remaining life of six years because funding was inadequate for the first four years. This represents a significant required increase in funding.

701.5 - One of the major assumptions built into almost all funding plans constructed using the component method is that funding would be provided based on these calculations, meaning 100% funding at all times. But that is a funding goal, not a funding method. Since 100% funding rarely occurs in the real world, assumptions must be made on how to allocate funds between components.

701.6 - Because of its simplicity, the component method was easily understood, so was widely adopted by those using spreadsheets to calculate reserves. Disclosure requirements based on the component method have made their way into state civil statutes for several states, and into reserve disclosure requirements adopted by the American Institute of Certified Public Accountants (AICPA) and later by the Financial Accounting Standards Board (FASB).

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701.7 - The simplicity of the component method is usually displayed as we have included it in Exhibit 7-1 above, generally using a single component to demonstrate the calculations. The deficiency of the component method becomes obvious when multiple components and less than 100% funding exist. Unfortunately this is the norm, as very few associations have only a single component, and very few associations are 100% funded.

701.8 - Exhibit 7-2 below provides an example of a component method funding plan based on an assumption of prorating available funds to all components.

Exhibit 7 - 2

#	Component	Replacement Cost	Life	Available Funds **	Required Funds	Remain Life	Annual Contribution	"Normal" * Contribution
1	Painting	\$ 100,000	10	\$ 28,980	\$ 71,020	6	\$ 11,837	\$ 10,000
2	Roofing	\$ 237,500	30	\$ 22,942	\$214,558	26	\$ 8,252	\$ 7,917
3	Paving	\$ 62,500	15	\$ 12,075	\$ 50,425	11	\$ 4,584	\$ 4,167
4	Fencing	\$ 43,750	25	\$ 5,071	\$ 38,679	21	\$ 1,842	\$ 1,750
5	Doors Replace	\$ 11,250	35	\$ 931	\$ 10,319	31	\$ 333	\$ 321
	Total	<u>\$ 455,000</u>		<u>\$ 70,000</u>	<u>\$385,000</u>		<u>\$ 26,848</u>	<u>\$ 24,155</u>

* = Cost divided by life

** = Prorata allocation of funds based on cost

701.9 - Exhibit 7-3 below uses the same example, but instead allocates funds first to those components where funds are needed earlier, and reduces the allocation of those components with a longer remaining life. As you can see, this results in a lower annual contribution. This one fact demonstrates the inadequacy of the component method. When contributions can be easily manipulated just because of a changed assumption on the allocation of available funds, it is an inherently flawed method. The cash flow method, because it is based on the aggregate of all components, cannot be so manipulated.

701.10 – Both Exhibit 7 – 2 and 7 – 3 calculate only the first year contribution, for, as stated above, annual allocations are required for subsequent years, and the **MUST** be made since the association is less than 100% funded.

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Exhibit 7 - 3

#	Component	Replacement Cost	Life	Available Funds **	Required Funds	Remain Life	Annual Contribution	"Normal" * Contribution
1	Painting	\$ 100,000	10	\$ 40,000	\$ 60,000	6	\$ 10,000	\$ 10,000
2	Roofing	\$ 237,500	30	\$ 4,750	\$232,750	26	\$ 8,952	\$ 7,917
3	Paving	\$ 62,500	15	\$ 16,500	\$ 46,000	11	\$ 4,182	\$ 4,167
4	Fencing	\$ 43,750	25	\$ 8,000	\$ 35,750	21	\$ 1,702	\$ 1,750
5	Doors Replace	\$ 11,250	35	\$ 750	\$ 10,500	31	\$ 339	\$ 321
	Total	<u>\$ 455,000</u>		<u>\$ 70,000</u>	<u>\$385,000</u>		<u>\$ 25,175</u>	<u>\$ 24,155</u>

* = Cost divided by life

** = Allocation of funds based on remaining life

701.11 - The individuals involved in the reserve study industry in its early days unfortunately didn't think about the future, and applied component method concepts so universally that they are still creating confusion today. For instance, California civil code developed in 1983 required reserve disclosures of amounts funded by component. Likewise, the AICPA in 1986 created the draft of what became adopted in 1990 as the Accounting and Audit Guide for Common Interest Realty Associations that required supplemental reserve disclosures of both required annual funding and allocation of available funds by component. For any funding plan based on the cash flow method, which is far superior to the component method, these disclosures are essentially meaningless, and require that after-the-fact, arbitrary allocations be made to meet the disclosure requirements, since all cash flow funding is calculated at an aggregate level.

701.12 - Unfortunately, this early adoption of component method concepts effectively assures their continuation well into the future. Despite one's ability to demonstrate the superiority of the cash flow method, the concepts of the component method endure. The component method often excludes both inflation estimates and the accumulation of interest in the reserve fund, as the method is too simplistic for these variations.

701.13 - The component method, as compared to the cash flow method, is a very simplistic method that is valid only for the specific point in time that the calculation is made. It cannot be projected to any future period with a calculation that makes any sense, as it requires an assumption each year of the allocation of available funds amongst reserve components. Further, the defect of this method is that simply by making a different assumption about the allocation to components of the actual cash on hand, a different calculation of the funding requirement is forced. The component funding method cannot logically be supported. The component method is a relic that should have been consigned to the scrap heap of history 30 years ago.

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Cash Flow Method

701.14 – The authors started using the cash flow method of calculating funding plans in 1982, although software utilizing the cash flow calculation method did not become commercially available until 1989. The release of the first software program for general use, the PRA System (still available and in common use today), was the first reserve study software product to offer cash flow calculations. Some reserve study companies have cash flow calculations on their in-house proprietary software products, although most of these are simply spreadsheet applications not acceptable for public use.

701.15 - The cash flow method ignores individual components and bases all calculations on the aggregate of all component activity. The number of components is irrelevant, and the cash flow method does not require an arbitrary allocation of available funds or annual contribution on a component basis. The dollars calculated are simply reserve dollars, not roofing, painting, or paving dollars.

701.16 - The calculations of the cash flow method are very straightforward. The current reserve cash and investment balances and aggregate annual future expenditures are the only two factors that must be known. A stream of revenues (the cash flow) is then calculated to meet the future expenditures. The cash flow method does not, in itself, contemplate any funding goal; it is simply a method of calculation. Exhibit 7-4 below provides an example of a cash flow funding plan using the same component data as used in Exhibits 7-2 and 7-3 above.

701.17 – Many people ask what amount they should fund. They want to know what their goal should be. Let's answer that question first, before discussing the various factors to consider in making a funding goal decision. The answer is that there is NO "right" funding goal that is applicable to everyone.

701.18 – Both CAI National Reserve Study Standards and APRA Reserve Study Standards identify three broad funding goals: baseline funding, threshold funding, and fully funded or 100% funded, in addition to any statutory funding requirements. The authors disagree with both the terminology and concepts applied by CAI and APRA. Even under their concepts, ALL funding plans are actually a form of a threshold plan, just either on the low side, high side, or somewhere in between.

701.19 – The Exhibit 7 – 4 funding plan below does not require annual assumptions as to allocation of funds, which makes it much easier to develop a more flexible funding plan. In this instance,

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the funding plan incorporates a modest 1.5% annual increase in assessments. This allows the association lower assessments in the early years, raise them to account for the impact of inflation in later years, and still generate the same amount of money over the 30-year funding plan. This results in the first year annual assessment being only \$ 19,500.

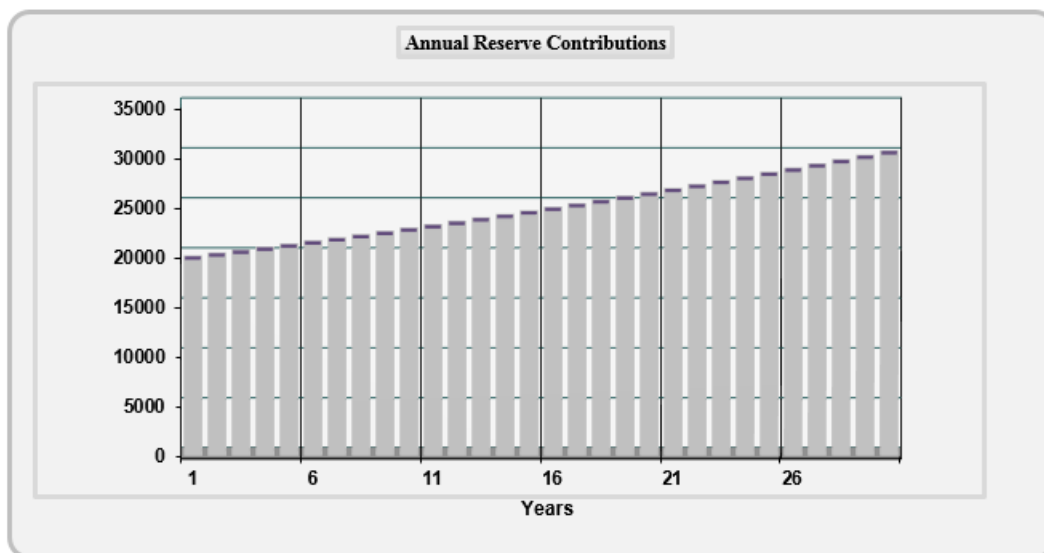
Exhibit 7 – 4

#	Component	Replacement Cost	Life	Available Funds	Required Funds	Remain Life	Annual ** Contribution	"Normal" * Contribution
1	Painting	\$ 100,000	10			6		
2	Roofing	\$ 237,500	30			26		
3	Paving	\$ 62,500	15			11		
4	Fencing	\$ 43,750	25			21		
5	Doors Replace	\$ 11,250	35			31		
Total		\$ 455,000		\$ 70,000	\$385,000		\$ 19,500	\$ 24,155

* = Cost divided by life, no changes over 30 year plan

** = First year only, increases 1.5% annually

The contribution chart below provides an example of what the association's assessment structure would look like over time. This gentle curve of increasing assessments is necessary to offset the impact of inflation, and represents what many would consider the ideal assessment structure.



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702 - Funding Goals

702.1 – Excerpt from CAI National Reserve Study Standards:

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than “Fully Funding.”

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes. While this could be any of the three above methods, statutory funding generally tends to apply the baseline funding concept.

702.2 – While the above goals could theoretically be applied to either the component method or the cash flow method, they can practically be applied only to the cash flow method. Since the component method limits its initial calculations to individual components, it would be necessary under the component method to make an additional calculation at a total level in order to determine where an association stands in relation to the above defined goals. Since the component method is inherently biased towards 100% funding on a component by component basis, it should generally result in what is described by CAI and APRA as “Full Funding” above. That terminology is misleading, as is discussed below.

Baseline Funding

702.3 - Baseline Funding is defined under CAI’s National Reserve Study Standards as “Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.” Under that definition, virtually all funding plans could be described as baseline plans. We understand the intent of this definition is to keep the reserve cash balance “barely” above zero, without retaining any additional cash. Under this funding model, the Association assumes significant risk simply because decades of experience in the community association industry has demonstrated that expenditures for major repairs and replacements rarely occur exactly when anticipated or exactly for the cost anticipated. When you have no margin for error, as is the literal definition of a baseline funding goal, any difference in timing or cost can spell “special assessment.”

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702.4 – The case for baseline funding is that it tends to make for the most efficient use of the Association's and members' money. In other words, reserve funds are generally not sitting idle in investment accounts – members are “allowed” to keep the money themselves and fund only when needed.

702.5 - Our case against baseline funding is two-fold:

(1) Keeping Reserve cash balances low increases the likelihood that a special assessment will occur at some point in the future. Remember, the entire reserve study is built on a set of assumptions and estimates about future events over which the Association has limited control. As demonstrated in exhibits 7 – 2 and 7 – 3, relatively minor changes in assumptions about replacement cost, remaining useful life, inflation, and interest rates can all have a dramatic effect upon the funding plan. A relatively minor change in estimates can wipe out ALL reserve funds when your goal is simply to stay above zero.

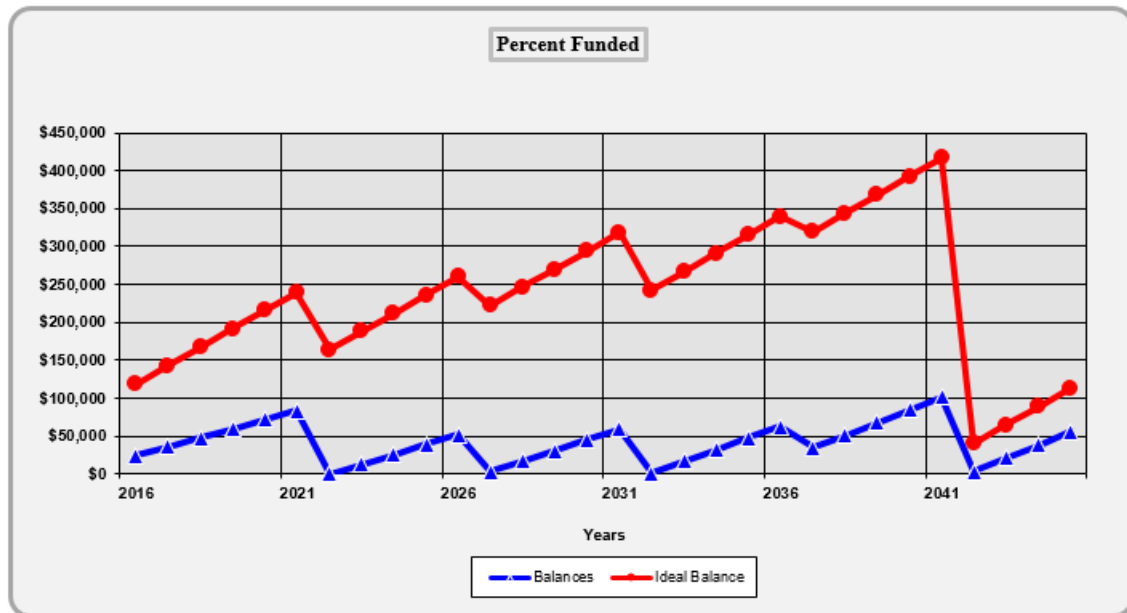
(2) Baseline funding by definition means that you are funding at less than 100%. This means that current owners are NOT paying assessments sufficient to pay for the “consumption” of the common area components that they are presently consuming; they are passing the buck to future owners. In some states, this could be interpreted as a violation of statutes, as the Association is not levying assessments sufficient to provide for the maintenance and operations of the Association common areas.

702.6 – Further, there is no representative structure for baseline funding. Any number of different funding plans could be classified as a baseline funding plan.

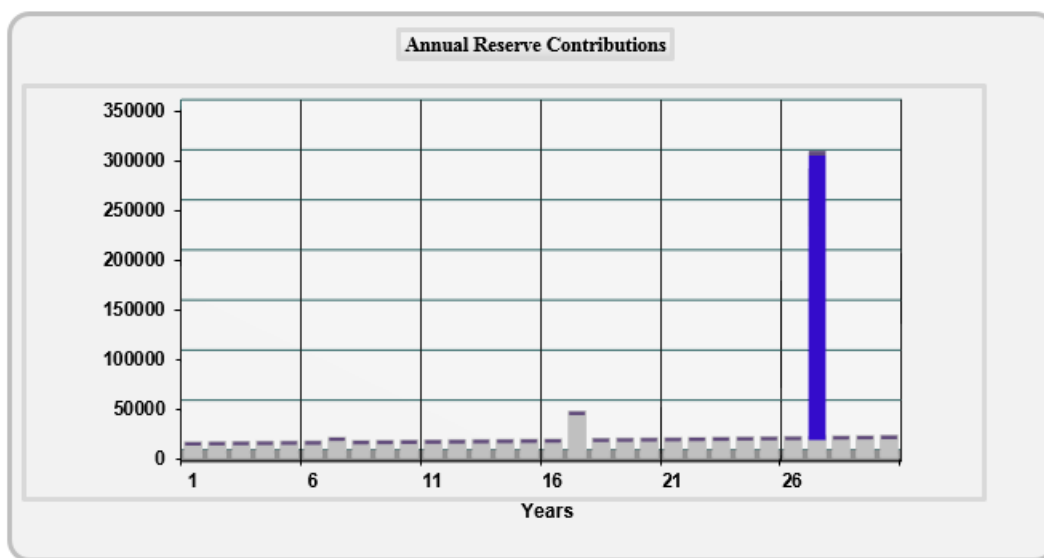
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Exhibit 7 – 5



The chart above demonstrates that the actual balance stays just above zero and far below the ideal, or 100% funded calculated balance. In order to achieve this, assessments adjustments and special assessments were necessary for this particular funding plan, which are shown in the assessments chart below. This is not a recommended funding plan, but clearly demonstrates the danger of special assessments inherent to baseline funding plans.



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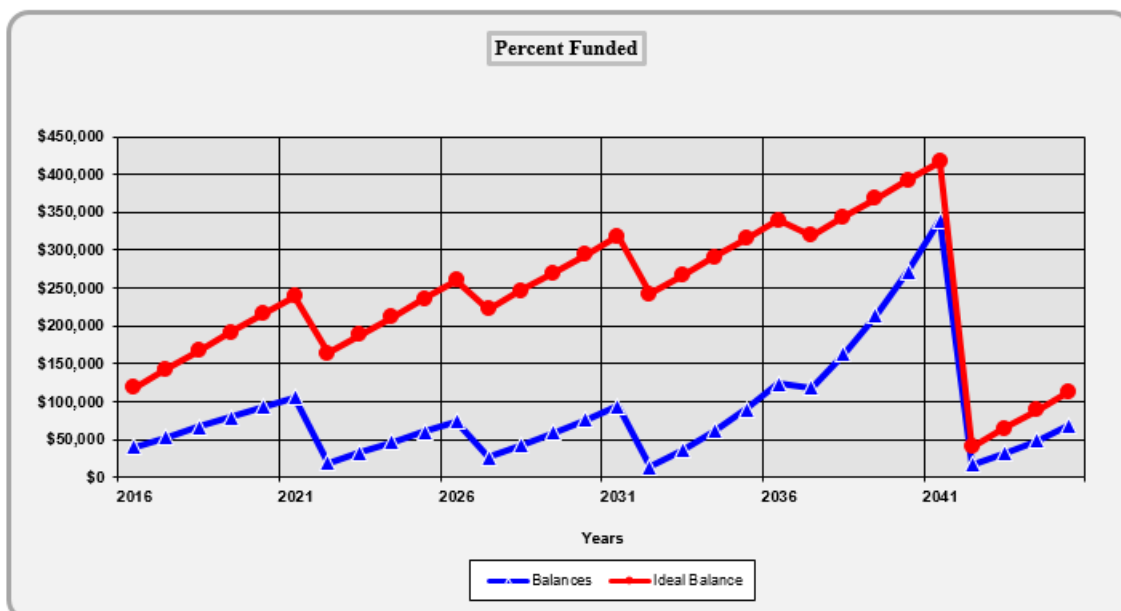
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Threshold Funding

702.7 - Threshold Funding is defined under CAI's National Reserve Study Standards as "Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount." Depending on the threshold, this may be more or less conservative than "Full Funding" (under the CAI definition). The only way to be more conservative than fully funding (again, using the CAI definition of fully funded) is to purposely be more than 100% funded. Obviously, because baseline funding and full funding are intended to describe the two extremes of funding, threshold funding was really intended to be a middle-of-the-road, compromise funding goal. It is much easier to describe ALL funding goals as threshold goals; you're simply either near the low end (baseline funding) or the high end (full funding).

702.8 - Threshold funding is what is actually used by most associations, as so few are fully (100%) funded, and most consider baseline funding to be too dangerous. An example of a threshold funding graph, using the same component assumptions as above, follows. In this example, the threshold is set at \$10,000. The balance dips below \$20,000 three times, but never drops below \$10,000.

Exhibit 7 – 6



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Full Funding

702.9 – Full Funding is defined in CAI’s National Reserve Study Standards as:

FULLY FUNDED: 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance. This leads to the next definition.

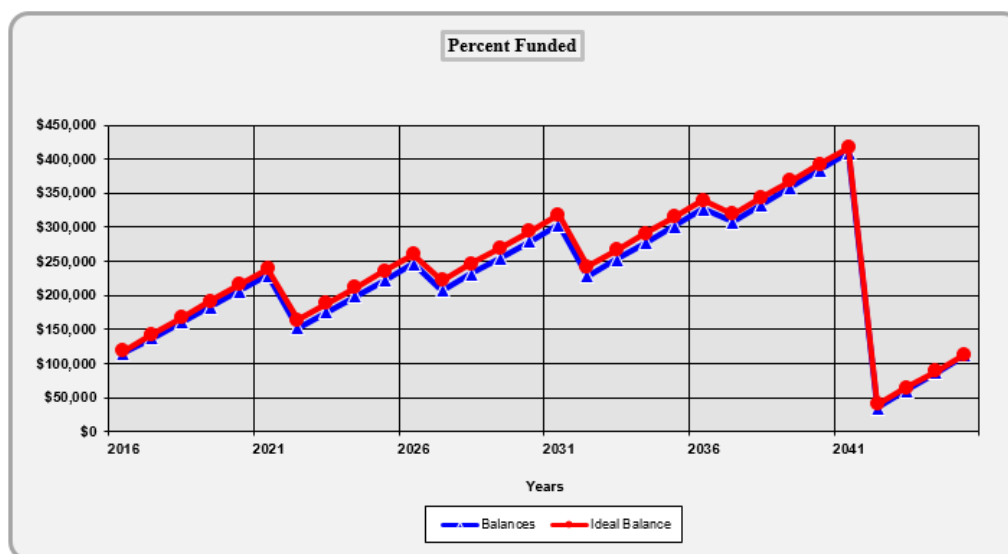
FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which Actual (or projected) Reserve balance can be compared. It is the Reserve balance that is in direct proportion to the fraction of life “used up” of the current repair or replacement cost. This number is calculated for each component, then summed together for an association total. Two formulae can be utilized, depending on the provider’s sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

$$FFB = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life or}$$

$$FFB = (\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) + [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Interest Rate}) ^ \text{Remaining Life}] - [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Inflation Rate}) ^ \text{Remaining Life}]$$

702.10 – The chart below presents an example of a “full” funding plan. In this example, the association is above 90% funded in all but one year of the plan, and the actual balance and ideal balance lines are nearly on top of each other.

Exhibit 7 – 7



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702.11 – The authors have several problems with these definitions: (1) The term “depreciation” is an accounting term with a precise definition, that concept having been developed decades before the concept of reserve studies even existed, and does not conceptually match the time decay factor of physical components; (2) the use of the term “Full Funding” implies that the entire replacement cost is already funded when what is really being described is a sequential 100% funded amount; and (3) 100% funded under the CAI definition of percent funded produces a skewed result because of the flawed calculation of percent funded.

702.12 – While the authors understand the concepts that CAI/APRA are trying to communicate, CAI and APRA terminology of “depreciation” and “fully funded” are both misleading and inaccurate. The term “fully funded” is misleading because it implies that the entire replacement or repair cost is available as cash on hand “now,” whenever that “now” is. What CAI and APRA are actually describing, however, is a sequential 100% funded amount. The term is inaccurate because of the bias built into the CAI and APRA percent funded calculation formula.

702.13 – “Full Funding” or “Fully Funded” can only mean one thing: that the entire major repair or replacement cost is available as cash on hand, now. Assume for a moment that you are in year five of a 10-year life of a component, and you have accumulated exactly one half of the estimated replacement cost. Under the CAI/APRA definition, you are “fully funded.” But, now assume that the life is reduced from 10 years to eight years, and you have only three years remaining to accumulate the remaining replacement cost. Are you still “fully funded?” No. A simple change in an assumption cannot be construed to mean that you are no longer fully funded; instead, it exposes the flaw of the original definition.

702.14 – The term “depreciation” as used by CAI/APRA is intended to communicate the deterioration that occurs to physical components over time. We refer to this factor as “time decay.” The two concepts are very similar. Depreciation is an accounting concept intended to estimate the decrease in value of an asset. Depreciation is a historical, cost-based, backwards-looking system. Time decay is a future, inflation-adjusted cost-based, forward-looking system intended to measure the physical deterioration of a component. While various depreciation methods have evolved over time, time decay is normally calculated on a “straight line” basis.

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702.15 – A component may retain near 100% functionality for the majority (example - two thirds) of its useful life, and experience the majority of deterioration during the last one third of its useful life. Attempting to measure actual deterioration would require a separate calculation for each component based on the assumed actual time decay factor, which is too time-consuming to calculate, and is also still dependent on subjective assumptions.

702.16 – An example of how attempting to follow the actual time decay factor might play out follows: If one owner lived in a unit for the first two thirds of the component life (using the example above), that owner would contribute very little towards the replacement cost. Another owner residing in the unit for the last one third of the component's life would bear the majority of the cost. Most people simply would not consider that to be fair.

702.17 – For financial modeling purposes in a reserve study, the straight line concept of the time decay factor is generally applied and considered to be the most reasonable, fairest method. It also avoids the inherent subjectivity that exists in trying to make calculations based on actual time decay.

702.18 – Some reserve practitioners take the position that a funding plan can have elements of two of the above CAI-defined goals within the same funding plan. As an example, an Association could begin a 30-year projection period at a threshold level and move up into a full funding goal. This position shows the difficulty of attempting to apply a single name to something that can have attributes of more than one funding goal.

702.19 – The authors agree that a funding plan can display different characteristics at different points during the 30-year funding projection period. For that reason, we can't accept the CAI/APRA naming conventions; they simply aren't logical. Unfortunately, once again these ill-devised naming conventions have crept into state statutes. Nevada for example, requires that associations identify (using the CAI/APRA-defined naming conventions) the type of funding plan the Association has adopted. The author have adopted the position of advising all our Nevada clients that they have a threshold funding goal, as that is generally the only name that could come close to identifying any funding goal, given a choice amongst those three names.

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702.20 – An example of a funding plan that exhibits elements of more than one of the above described funding goals is one that the authors regularly encounter as we perform initial reserve studies for new association clients. We find that many funding plans are essentially at a baseline level when we take over. This is due to chronic underfunding and failure to consider all components in the study. The authors' normal practice on a first draft of a funding plan is to establish a goal to achieve 100% funding by the end of the 30-year funding projection period, or earlier if possible. That could mean that the plan exhibits elements of a baseline plan in the early years, a threshold plan in the middle years, and a full funding plan in the later years. Such a plan defies fitting into the naming convention established by CAI/APRA.

702.21 – Establishing a cash flow projection that provides enough money to pay for estimated future expenditures is the only real funding goal that matters. For those associations that experience a “peak expenditure year,” developing such a funding goal is challenging. Using a percent funded calculation, under the inflation-adjusted method, is an objective method of measuring status of reserves.

702.22 – Using a percent funded calculation to determine the “strength” of the reserve fund is both an oversimplification and a misnomer. Strength of the reserve fund is determined by cash flow and no other factor. You either have the projected cash flow to meet estimated obligations, or you don't. Percent funded has limited value, and that value is restricted to measuring current or projected balance against a theoretical 100% funded calculation. As described in Chapter 8, depending on how the percent funded calculation is made, we have observed variations in the calculation of up to 30%. That variation is too significant to provide reliability.

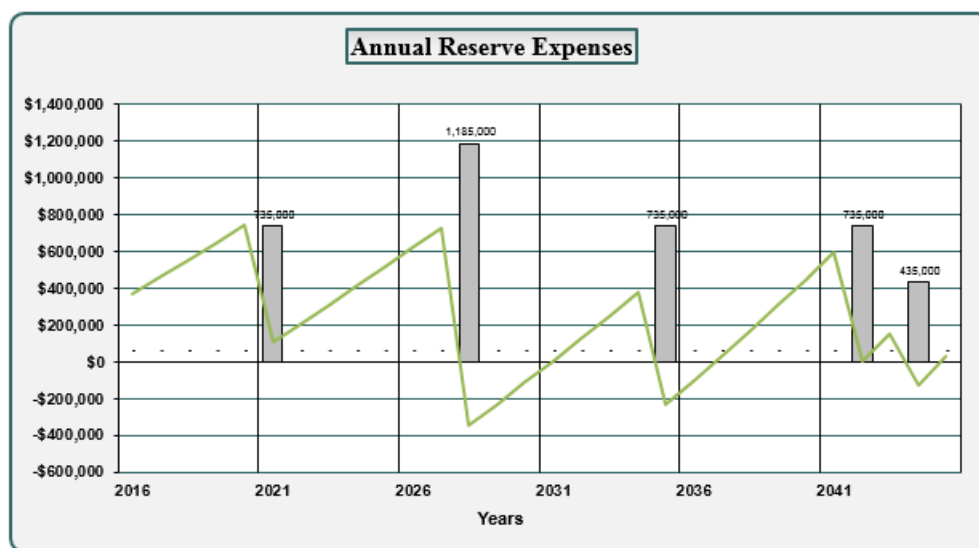
702.23 – The only real purpose for calculating percent funded is to determine the fairness of reserve assessments. If an Association is constantly 100% funded (using the inflation-adjusted method of calculating percent funded), that means that current owners are paying for their fair share of use of the components, assuming a straight line time decay factor of components. At any percentage less than 100%, it means that current owners are paying less than their fair share, and future owners will have to make up the difference. Current and future owners may represent the same group of individuals, but, given our personal observations, approximately 5% - 10% of units change hands annually, meaning that in as little as 10 years, you could theoretically have an entirely different set of owners.

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702.24 – The authors established the concept of “peak expenditure year” as being the most critical factor in establishing the adequacy of a funding plan. While some in the industry promote the concept of 70% as a “strong” funding amount, the 70% level may prove inadequate for some associations. This is best demonstrated with an example. If an Association has only a single component, when it is time to replace that component, anything less than 100% funded means they’re underfunded. It is only the aggregation of multiple components with different replacement dates that allows associations to survive being less than 100% funded. However, even with multiple components, if an association’s projected expenditure pattern is such that it creates a peak expenditure year, the 70% level may prove inadequate. Exhibit 7 – 8 below provides an example of a 70% funding plan that fall short of the goal. This plan goes into negative balances in year 2028, as depicted by the green line in this chart.

Exhibit 7 - 8



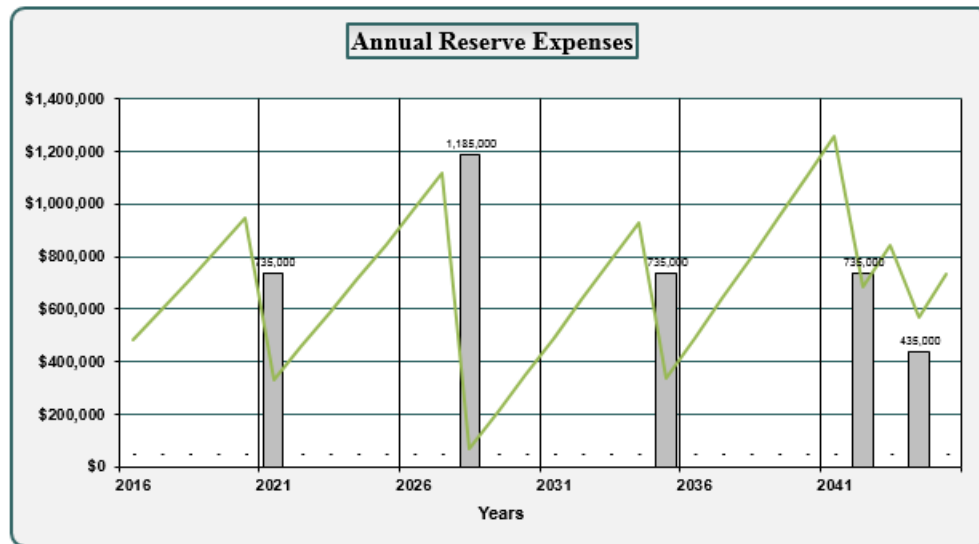
702.25 - Also notice that continuing with the 70% plan does not allow the association to recover from the first failure, and reserve balances go negative again in years 2035 and 2045. Note that the balance drops to near zero in 2043, but because the large expenditures in 2043 are almost immediately followed by a smaller group of expenditures in 2045, it has much the same effect as if they occurred in a single year.

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702.26 – The example below looks at the same expenditure pattern as used in the above example, but increases the funding level to 95%. Exhibit 7 – 9 below provides a graphic example of having sufficient funding to meet all expenditures, but note that it requires far more than 70% to meet the peak expenditure years.

Exhibit 7 – 9



702.27 - Statutory Funding is defined under CAI National Reserve Study Standards as “Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes.” We simply have never seen this in practice, so will not discuss further.

702.28 – The “percent funded” concept has been widely used over the last few years as a measure of the “strength” of the reserve fund. Common practice has evolved amongst many reserve study providers to assign rating “values” to percent funded categories. While there is no generally accepted standard regarding percent funded, the table below represents what we see as the most commonly used rating values assigned:

- 0% to 30% funded - Weak
- 30% to 70% funded - Adequate
- 70% to 100% funded - Strong

The unfortunate side effect of this assignment of values is that many associations interpret this as meaning they don’t have to or should never attempt to fund beyond 70%, as that is already considered an “adequate” funding level.

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702.29 – The authors admit to being advocates of 100% funding for two reasons. The first is the simple issue of fairness; those who “consume” the common area components should pay for them. Secondly, in 30-plus years of reserve study preparation, we have never seen a reserve obligation decrease, but have almost always seen the reserve obligation increase as components either cost more, have shorter lives, or new components never previously considered make their way into the reserve funding plan. In short, being 100% funded makes it much easier to absorb unexpected expenditures.

702.30 – Exhibit 7 – 10 on the next page provides an example of a funding plan that remains at, or near, 100% funded for the entire 30-year projection period. The slight variations in percent funded from year to year are the result of expenditures occurring in those years from amongst the multiple components included in the study. If only a single component was included in a study, it would theoretically be possible to keep the plan at a constant 100% funded level without making significant variations in annual funding. For multiple components, this cannot be achieved unless significant variations in annual funding are made.

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Exhibit 7 - 10

Funding Plan Table

	Ending Balance	Ideal Balance	Percent Funded
12/31/13	\$ 18,136	\$ 18,363	98.8%
12/31/14	11,269	11,709	96.2%
12/31/15	15,857	16,458	96.3%
12/31/16	20,742	21,393	97.0%
12/31/17	8,539	8,841	96.6%
12/31/18	8,112	8,173	99.2%
12/31/19	13,255	13,227	100.2%
12/31/20	11,538	11,440	100.9%
12/31/21	16,761	16,758	100.0%
12/31/22	16,142	16,181	99.8%
12/31/23	14,296	14,327	99.8%
12/31/24	19,921	20,018	99.5%
12/31/25	25,725	25,933	99.2%
12/31/26	17,394	17,527	99.2%
12/31/27	10,125	10,121	100.0%
12/31/28	16,167	16,177	99.9%
12/31/29	14,063	14,045	100.1%
12/31/30	13,305	13,254	100.4%
12/31/31	19,714	19,735	99.9%
12/31/32	17,500	17,523	99.9%
12/31/33	24,199	24,343	99.4%
12/31/34	23,450	23,670	99.1%
12/31/35	21,157	21,377	99.0%
12/31/36	28,370	28,674	98.9%
12/31/37	19,613	19,776	99.2%
12/31/38	8,908	8,827	100.9%
12/31/39	16,418	16,295	100.8%
12/31/40	24,104	24,060	100.2%
12/31/41	21,430	21,422	100.0%
12/31/42	20,428	20,489	99.7%

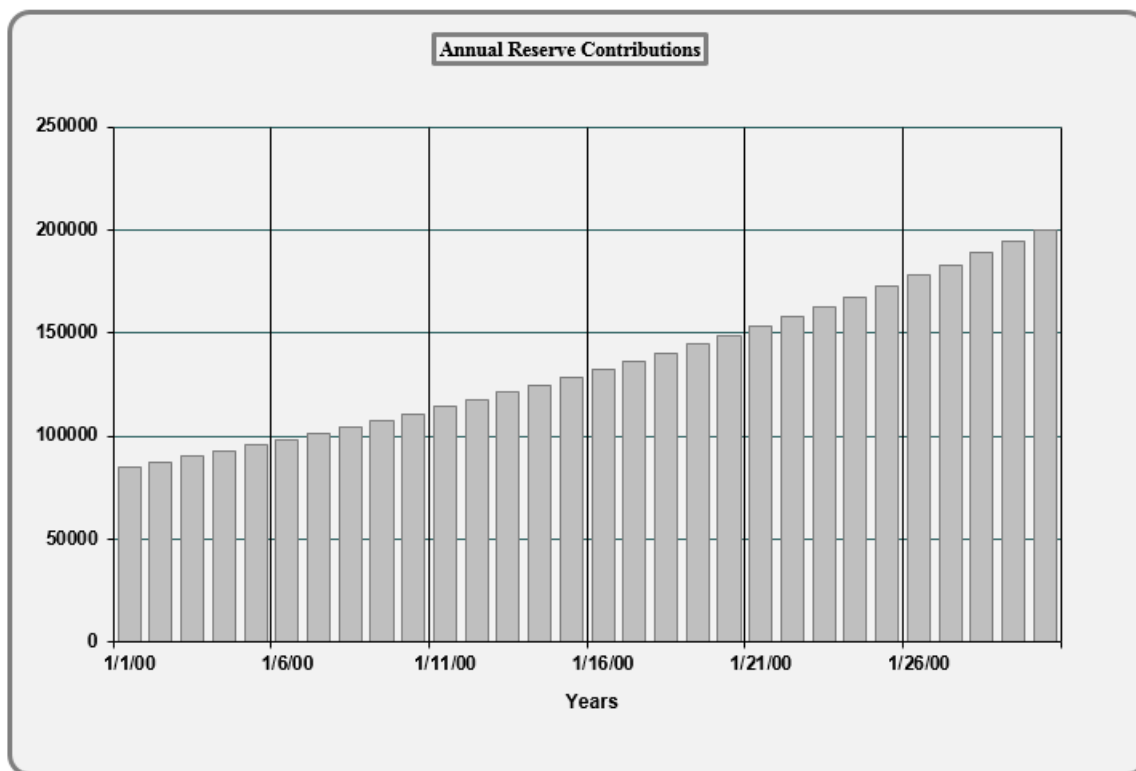
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703 - Regular Assessments

703.1 – The goal of most funding plans is to achieve a relatively level and predictable regular annual or monthly assessment. This goal is borne out of both practicality and the general budget limitations existing in most associations. In an ideal situation, annual reserve assessments would have only a minor increase to adjust for the effects of inflation on the underlying components and the resulting increase in future expenditures. A graphic example of such a funding plan is shown in Exhibit 7 – 11 below.

Exhibit 7 - 11



703.2 - However, each Association is unique and, as such, must determine its own funding plan. APRA Standards, Section 2 – Financial Analysis, Section H states: “In general any Funding Plan shall meet the following Funding Principles: Sufficient funds when required, stable contribution rate over the years, evenly distributed contributions over the years, and fiscally responsible.” While ICBI took the approach that each Association should determine its own funding plan, these general principles provide a good guideline for the development of any funding plan.

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703.3 - Many times, we encounter situations where the accumulated reserve funds and annual assessment levels are so low that a significant increase in regular assessments is required to provide sufficient funding for future expenditures. Most associations have a maximum monthly total assessment amount that can be realistically charged to its members. This includes both the operating and reserve portion of assessments. In many associations, this is a political rather than an economic decision. It's political because many members either cannot afford significant increases, or else will rebel, causing collection issues, if monthly assessments spike too high.

703.4 - We have encountered several situations over the years where governing bodies or management have insisted that they desire a level assessment funding plan for the entire 30-year projections period. Some have interpreted their governing documents to require this, although we have never encountered such requirements in governing documents. We believe that a level funding plan for the entire 30-year projection period is a mistake for the following two reasons.

703.5 - Keeping the funding plan level for the entire 30-year period means that current assessments at the beginning of the funding period must be set artificially high to compensate for the lack of annual increases to offset the effects of inflation. This means that current owners are being penalized and future owners are getting the break of reduced assessments. In short, it is simply not a fair plan.

703.6 - The other disadvantage of a level funding plan is that it creates an expectation in the minds of members that assessments will always be the same. That is unrealistic, as the expenditure level will increase because of inflation. This kind of plan also makes it much more difficult to initiate increases, as the increases must generally be far higher than would be required under minor annual increases.

703.7 - The authors' opinion is that most reserve study funding plans should include minor annual increases, both to offset the impact of inflation on expenditures and also to establish an expectation of modest annual increases. This type of funding plan is much easier to "sell" to members than level funding plans with large periodic increases.

703.8 - One point we want to make about something that should NEVER happen in a reserve study funding plan comes from an actual reserve study we saw recently in San Diego. The reserve study was prepared by the governing body, not by an experienced reserve practitioner. The funding plan was developed to more or less mirror the future estimated expenditures. From a total budget

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standpoint, this funding plan was a nightmare. No operating budget could absorb the wild annual fluctuations of the reserve portion of the budget, so the only two options were either that the annual assessment must fluctuate with the fluctuations in reserve assessments, or that total assessments could remain at some stable level punctuated by periodic special assessments. This is not a plan; it's a reaction to events. The problem is, that's what the board approved.

703.9 - Another factor that should always be considered by an Association during the establishment of its reserve funding plan is the adequacy of the operating budget. If an Association has an inadequate operating budget, it will either fail to fund reserves as scheduled, or else will fund reserves then borrow the money back for operations. Either way, what often happens is that reserve projects get postponed due to lack of funding, and repair and replacement costs increase as a result.

703.10 - We've seen a number of associations, particularly those in states without statutory reserve requirements, that don't create formal reserve plans. Instead, they budget with the idea of having excess operating funds at year-end, and fund reserves simply by transferring that excess to reserves at year-end, after all operating needs have been taken care of. Again, this is not a plan; it's more like an afterthought.

703.11 - Another variation of failure to adequately plan was observed in a very large Association built in the early 1960s. The Association, located in California, conducted regular reserve studies, but never followed any specific funding plan. Instead, they allocated X dollars for reserves annually, and simply stopped making repairs and replacements when the money ran out. Over time, the deferred projects accumulated to the point that the Association was failing to make critical repairs, yet refused to raise assessments. The predictable result was the requirement for a more than \$20 million loan and special assessments for loan repayments.

704 - Special Assessments

704.1 - We often encounter situations where the accumulated reserve funds are so low that only special assessments can provide sufficient funding for future expenditures. Special assessments are often paired with loans to help stabilize cash flow. Loans are discussed below, so this section addresses just the various types of special assessments normally encountered.

704.2 - There are various purposes for which special assessments can be made: (1) funding a specific reserve project, (2) funding multiple reserve projects, (3) replenishing a depleted or underfunded reserve account, or (4) repayment of loans. The two primary considerations in

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making a special assessment are: (1) making sure you are assessing for enough money to complete whatever projects are needed, and (2) having an assessment structure that your members can actually pay.

704.3 - Funding a specific reserve project - We have seen several instances in the past where associations failed to make a large enough special assessment, meaning the Association ran out of money before the project was complete. The choices here are not attractive: either postpone the project, which is sometimes not possible, or seek additional funds. If the project can be divided into separate phases, it may be possible to postpone certain phases. Seeking additional funding is equally problematic. It's difficult to go back to the membership for an additional assessment, and by this point, it's often too late in the process to seek an outside loan.

704.5 - The most frequent cause of seeking too little funding is underestimating the project to begin with. It is always good to get solid bids from contractors before determining the amount of the special assessment. The Association is often caught in a Catch 22 situation, however, as they generally can't sign contracts until they have secured the financing. That means they may be entering into the process without firm pricing.

704.6 - Another factor is that major reserve projects have a tendency to “grow” through change orders. An example is that an Association may hire a roofing contractor to remove the old roof and install a new one. When the old roof is removed, however, damage to the underlying roof sheathing could be discovered, increasing the overall cost significantly.

704.7 - A consideration of this type of special assessment is that the terms of the special assessment may require a refund of any portion of the assessment that was not used for the specific project.

704.8 - Funding multiple reserve projects – Special assessment issues related to multiple reserve projects are generally no different than funding a single project.

704.9 - Replenishing a depleted or underfunded reserve account – It is generally rare to see a special assessment for the simple purpose of replenishing an underfunded reserve account, since this is so general in nature. It is far more typical to see an increase in regular reserve assessments combined with special assessments for specific projects.

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704.10 - Repayment of loans – Special assessments to repay loans are generally structured to match the loan repayment terms. This means that most special assessments of this type have repayment terms of several years. We have seen such assessments ranging from seven to 15 years.

704.11 – Structuring of special assessments is crucial, and the Association is generally well-advised to discuss the matter with their legal counsel to make sure they are in compliance with governing documents. Several matters to consider are: (1) communications with members, (2) structuring payment schedules, and (3) effective date of the assessment.

704.12 – Communications with members is crucial to keep them informed about the need for the special assessments, and to gain their acceptance and support. Some association governing documents require member approval for any special assessments. Members may or may not be aware of the physical issues regarding components that create the need for a special assessment. The authors have observed situations in which associations kept their members informed versus those that did not. If member approval is required, keeping members informed is critical for approval of the special assessment.

704.13 – One good approach that we observed was when an Association identified the initial issues, estimated the need for a special assessment, and kept its members informed through a series of newsletters regarding progress. This included letting members know about estimated timetable, experts that were hired, and any minor disruption that might be caused during the investigative process as to the extent of work required. In essence, the board gained the buy-in of the members by keeping them very well-informed, including identifying the impact of failing to make the repairs timely.

704.14 – One approach that didn't work as well had the board going through the same investigative process, but not sharing information with the members. Their reasoning was that they wanted to have complete information first to avoid being embarrassed by learning things at the same time as the members. The result was that they released all information at the same time that they announced the special assessment. Much of the membership was caught completely by surprise, and they revolted. It took months of extra time and many town hall-type meetings to repair the damaged relationship between the board and the membership.

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704.15 – Structuring of the assessment payment schedules can have a significant impact on both gaining member approval of the assessment and collection of assessments. The traditional special assessment is a single lump sum charge against all members. Variations include: (1) spreading payments over a given time period to make it easier for members to pay; (2) spreading payments over a given time period, but offering an incentive discount to members that pay in full when the assessment is levied; and (3) making a single, lump sum assessment, but offering members the option of spreading payments over a given time period if they pay a higher amount (call it interest or a penalty) for the privilege of extended payments.

704.16 – The effective date of the assessment is an important factor to consider, and one that is particularly important to discuss with legal counsel if extended payment schedules are included. Our understanding is that the effective date of the assessment creates a legal obligation on the members. The wording of the assessment is critical when extended payments are included to make sure that the obligation is also not considered to be deferred. Normally, such assessments will require payment of the remainder in full upon transfer of title.

705 - Loans - Introduction

705.1 - In the past, when faced with a situation where major repairs were required and funds were not available, associations had no alternative but to pass a special assessment, defer repairs, or complete the work piecemeal over time. Each of these solutions has its own shortcomings and can create new problems for the board and the association members.

705.2 - Special assessments are never popular, can create a hardship for owners, and are often difficult to pass. Putting off necessary repairs is in conflict with the board's fiduciary responsibility to "preserve, enhance, and protect" the value of the Association, and can create additional liability for the Association if questions of health and safety are involved. Spreading the work over time will often increase the overall cost of the project and can become a source of owner dissent.

705.3 – A number of banks now specialize, or have departments that specialize, in the community association industry. Several are willing to lend money to associations for major repairs, and offer special loan programs to associations. Although such loans are not always easy to obtain and require special documentation, they do offer a practical and attractive alternative to the other choices.

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705.4 - Associations have all of the powers and characteristics of any other corporate borrower, with two important differences. The first is that associations are not dependent on sales, or the vagaries of the economy, to produce revenue for operations and debt service. The assessment and enforcement powers of the Association guarantee revenues. The fact that associations can generate revenue simply by raising assessments or by passing a special assessment is seen as a plus by a lender considering a loan to an Association.

705.6 - The second important difference between associations and other corporations is that because of the volunteer membership structure, associations do not have the continuity of management typical of business corporations. The individuals negotiating the loan may not be the same people representing the Association during the life of the loan. Accordingly, lenders place high importance on the Association's business practices and financial management. Association financial reports (including reserve studies), board minutes, and resolutions passed related to the loan transaction are evidence of business practices.

705.7 – The reserve study is particularly important, as it should provide evidence of the Association's ability to repay the loan. Since most associations update their reserve studies only every three years or so, it's not likely that the most recent reserve study will contain the loan or its repayment schedule as part of the cash flow analysis. Banks should generally be requiring an updated reserve study that includes the proposed loan and repayment schedule to make sure that it does not interfere with the Association's overall reserve plan.

705.8 – Since it is their money on the line, bankers have an incentive to demand reserve studies that are prepared in accordance with ICBI standards. The ICBI standards provide not only consistent reporting formats and calculations, but also disclosures that are not required under CAI/APRA standards. These provide additional information that help bankers to better evaluate the Association.

Loans – Finding a Lender

705.9 - When shopping for a loan, an Association will clearly be better off if they can find a lending institution that offers specialized financial services to associations. A lender who does extensive business with associations will have a better understanding of the powers of association boards and the complex responsibilities of association directors, and will be familiar with association governing documents.

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Loans - Collateral

705.10 - When approached for a loan by an Association, a typical lender will think in terms of tangible collateral for the loan - i.e., a lien on the common areas, liens on the individual units, or personal guarantees for the loan by directors and officers of the corporation. None of these alternatives is practical in most situations.

705.11 - Typically, association common areas are already so encumbered that a lien on the common areas has little value as collateral for a loan. In order to lien individual properties, lenders must do title searches, pay recording fees, and obtain the permission of the unit owner. These problems render placing individual liens impractical. As for personal guarantees of directors and officers, even the most dedicated volunteers would not be likely to make such a commitment.

705.12 - Unless the Association has title to a manager's unit, owns commercial leases, owns buildable land, or has other such assets to pledge as collateral, the most practical way to secure a loan is by pledging future assessment revenue as collateral. Such a transaction is similar to a for-profit business borrowing against its accounts receivable.

705.13 - Lenders who understand the collection and enforcement powers of association boards usually will secure loans with future assessment revenue. If the Association has sufficient cash flow to service the debt from regular assessments, the lender will probably require a line item in future budgets for loan payments. If a special assessment is required to pay the loan, the lender may request a specific assignment of special assessment payments. As a condition of the loan, most lenders will also require a conditional assignment of the Association's enforcement and collection powers. This will place the lender in the position to enforce collection of assessments should the board cease to do so and the Association defaults on the loan.

Loans – Loan Structure

705.14 - In many loan situations, the exact amount of money needed to complete repairs may not be known when the project begins. This is particularly true with roofing projects, dry rot repairs, and similar jobs where the full extent of work to be done sometimes cannot be determined until after the project is underway. Another variable which can affect the amount borrowed is the prepayment of special assessments by some owners. This will reduce the amount needed by the Association from the lender.

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705.15 - The easiest way to manage these variables is to have the loan structured initially as a line of credit for the maximum amount needed. Such loans should include a provision in the loan agreement that the loan will be converted to a term loan, for a fixed period, upon completion of the project. A loan structured in this way will give the Association needed flexibility and will minimize loan costs. Funds can be drawn on the line of credit as needed. During the drawdown period, interest payments will be due, but only on the amount drawn, not the full amount of the loan. When the project is completed, the final principal balance will be converted to a term loan and regular payments, including principal and interest, will commence.

705.16 - For loans involving a line of credit to be converted to a term loan, lenders will require that the drawdown period have a definite expiration date, usually one year or less. Most lenders will usually require that the Association negotiate “not to exceed” contracts so that the exposure of the Association is limited once work has begun, and the maximum amount of the loan can be determined when funding is committed.

705.17 - For less complicated or short-term projects, the loan can be structured as a regular term loan. These loans are funded in full when approved and will be paid off over a fixed term, with an amortization schedule such as is used for real estate of installment loans.

705.18 - Most borrowing situations can be accommodated by the loans described above. However, in some circumstances, other structures may be useful. This is especially true when the Association anticipates an infusion of cash from a source other than assessment revenue - i.e., a legal settlement, cash from sale of assets, or maturing investments. In these situations, a loan with structured principal reductions over time, or a balloon payment at the end of the loan, may lessen the strain on Association finances. A creative lender will be willing to work with the Association to design the best loan for its needs.

Loans – The Application Process

705.19 - Loan procedures will vary from lender to lender, as will particulars of what information is requested from the Association. Typically, the lender will require:

- Governing documents (Articles, Bylaws, and Declaration or Covenants)
- Current year budget
- Current financial statements (Balance Sheet, Income Statement, and Delinquency Report)
- Copy of most recent audited or reviewed financial statement
- Current reserve study
- Collection policy
- Borrowing resolution

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705.20 - Associations should involve their attorney at the early stages of loan negotiations. Before proceeding with a loan application, most lenders may require a written statement from the Association's attorney certifying the Association's authority to borrow and pledge assets as collateral. The lender may also request that the attorney's statement include verification that the borrowing resolution, certified by the secretary, was passed in accordance with the governing documents and applicable law.

705.21 - Before closing a loan transaction, most lenders will require another opinion letter from legal counsel stating that counsel has reviewed final loan documents and all details of the transaction on behalf of the Association. The attorney will be asked to certify that the loan documents are legal, binding, and enforceable, and that all resolutions passed and actions taken by the board and/or the unit owners, relative to the loan transaction, were taken in accordance with the Association documents. Even if the lender does not require such an opinion letter, a prudent board would be wise to seek the advice of counsel for its own protection. Another reason for involving the Association's attorney early in the process is that the Association's governing documents may include requirements which will affect how the loan is structured and how resolutions are to be drafted. The Association's attorney is the person best able to advise both the Association and the lender as to how to structure the transaction to fit the requirement of the governing documents. If the Association has special requirements or restrictions which affect the loan transaction, much time and trouble can be saved if they are defined early in the application process.

Loans – Loan Documents

705.22 - Loan documents will vary from lender to lender. In every case, however, Association officers will be asked to sign a note, which is the Association's promise to pay. Unless the loan is made on an unsecured basis, a security agreement will be required, pledging Association assets as security for the loan. When assessment revenue or personal property of the Association are used as security for the loan, the Association will also be asked to execute a financing statement. This document specifies collateral pledged by the Association and is recorded as a public record of the lender's claim.

705.23 - In addition to the standard loan documents, some lenders may draft a special loan agreement to be executed by the Association. The purpose of the loan agreement is to specify in detail the exact terms and conditions of the loan. Typically, the loan agreement will include definitions, conditions for disbursements, insurance, compensating balances requirements, and

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similar matters. When assessment revenue is pledged for the loan, the loan agreement may include an assignment of assessments and an enforcement clause. Terms of the loan agreement are negotiable and will vary with each loan.

705.24 - Many Association loans will be approved subject to conditions required by the lender. Specific conditions are subject to negotiation between the lender and the Association, and can include virtually anything mutually agreed upon which is lawful and not in conflict with the Association governing documents.

705.25 - Most banks will require that the Association move its deposit relationship to their institution as a condition of the loan. Periodic updates of Association financial information are another common condition required by lenders. Depending on the complexity of the renovation project being financed, the lender may impose conditions relative to disbursement of loan proceeds. In highly complex situations, the lender may require that a construction manager, approved by the lender, be retained by the Association, or that the bank makes periodic inspections of the work in progress.

705.26 - Lenders may place restrictions on the Association's authority to amend documents during the life of the loan, and may require that the Association obtain prior approval of the lender before changing management firms. Generally, however, lenders are reluctant to involve themselves too deeply in affairs of associations, which are the responsibility of the Association board or its managing agent. Loan conditions will increase in complexity depending on the complexity of the repairs being financed. Before agreeing to loan conditions, the Association should consult with their attorney and managing agent to be sure that ongoing operations of the Association are not unduly disrupted.

706 - Interest and Inflation

706.1 - Both interest and inflation considerations are important to the calculation of reserve requirements. It is generally assumed that interest earnings will be retained in the reserve fund. Likewise, inflation is a factor that will cause the prices you pay for future repairs to be higher than the cost you're paying currently for those same repairs and replacements.

706.2 - The questions that continually arise are: "Should interest and inflation be included in the reserve study? Don't they cancel each other out?" and "How do you calculate what interest or inflation rate to use?"

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706.3 - Interest earnings do not offset inflation. While interest and inflation rates may be similar, the inflation factor is applied to the total estimated future expenditures for all common area components included in the funding plan. This is (virtually) always a higher number than the current funds set aside for reserves. Conversely, the funds set aside for reserves are (virtually) always a smaller amount. That means that the dollar amount of interest earnings will grow far more slowly than the dollar amount of inflated costs, even if the rates are the same.

706.4 - An example is that an Association may anticipate spending \$3,000,000 over the next 30 years, which includes inflation calculations. The current reserve cash on hand may be as little as a few hundred thousand dollars, as that is all that is required to pay for planned expenditures arising in the next few years. Inflation of 2% on \$3,000,000 is \$60,000 annually. An interest rate of 2% on \$500,000 of cash invested generates only \$10,000 of interest earnings annually, creating an annual funding gap of \$50,000.

706.5 - The second question of how these rates are calculated has no correct answer. Some people use a rule of thumb. Others look at their current interest earnings rates as a guide. Current interest earnings rates cannot be ignored, but if they are unusually high or low, it is not practical to expect those rates to continue indefinitely. California associations should be aware that California law limits the interest rate assumptions that may be used in a reserve study to 2% above the discount rate published by the San Francisco Federal Reserve Bank.

706.6 - Since the funding “window” of a reserve study is normally a 30-year projection, many believe it is legitimate to consider average rates rather than current rates in establishing a funding plan. The attached historical tables of interest and inflation rates allow one to put current rates into perspective. Exhibit 7 - 12 reflects solely annual rates. Exhibit 7 - 13 reflects the 5-year average rate in any given year. Exhibit 7 - 14 reflects the 30-year average rate in any given year. Note that Exhibit 7-13 does not contain the sharp peaks and valleys of the annual rates in Exhibit 7-11. However, general trends are still similar.

706.7 - Note that regardless of sometimes significant annual variations in rates, the 5 and 30-year moving averages smooth out the rates considerably, eliminating the extreme spikes and valleys that generally occur for only short periods of time. Since the reserve funding plan typically projects for a 30-year period, it is usually safe to ignore current extreme changes in rates in favor of longer-term moving averages.

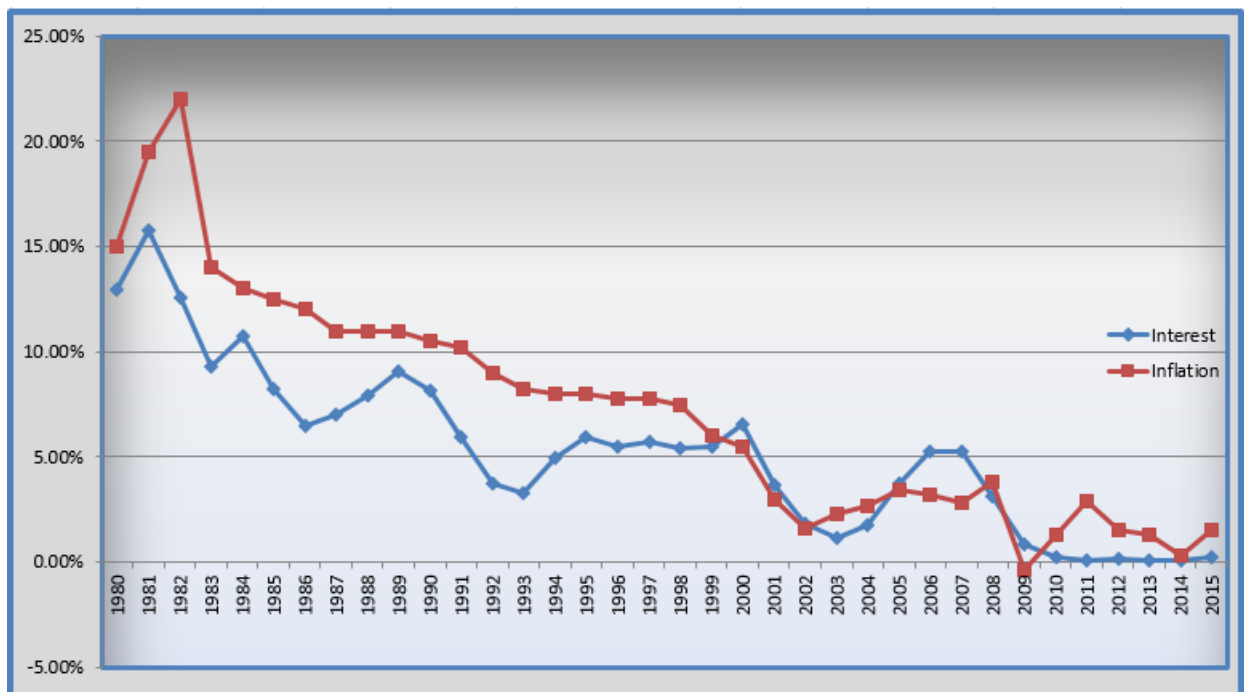
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706.8 - Current interest rates are at an all-time historical low. Despite political pressure to keep rates low, they are expected to trend back up. Inflation rates reported by the government are also at all-time lows, actually reflecting occasional deflationary rates. However, because of changes made in recent years to the government data as to what is included in their calculations of the official inflation rate, current inflation rates are not comparable to prior data.

Exhibit 7 – 12

Annual Interest and Inflation



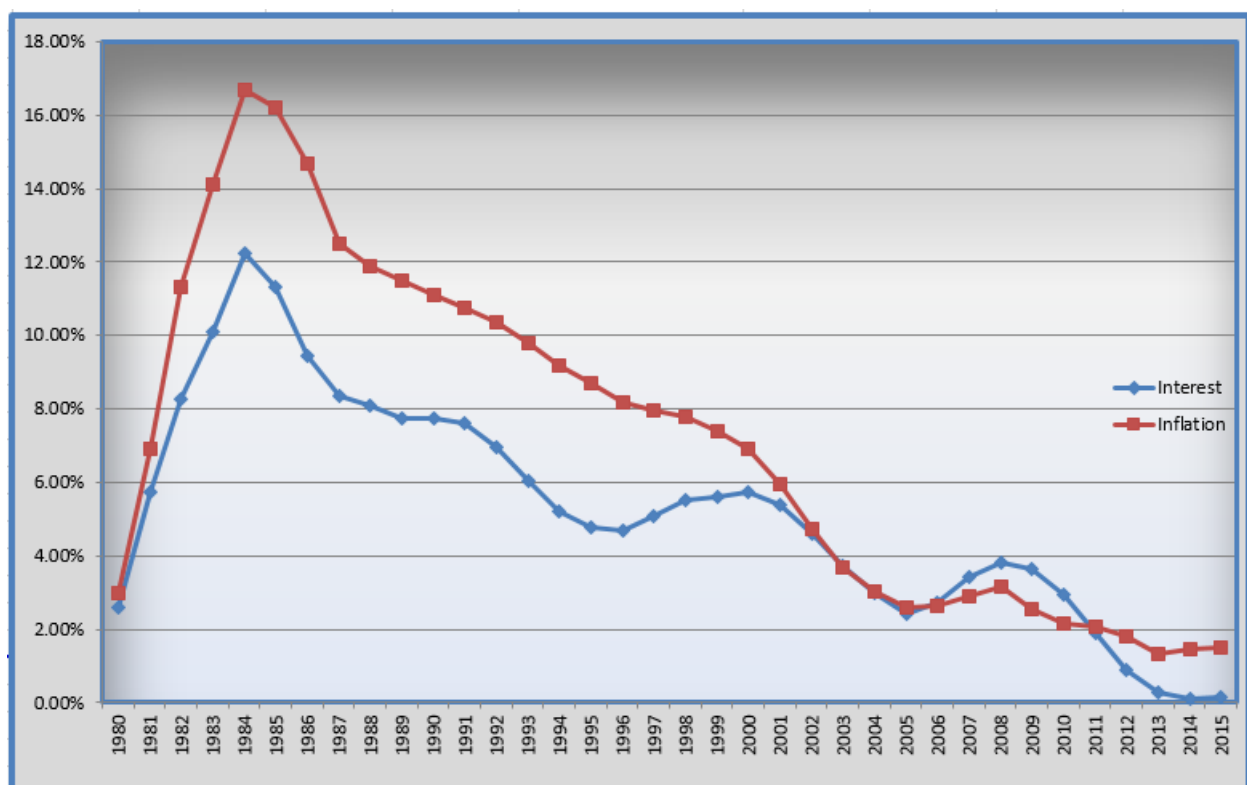
706.9 – Exhibit 7 – 13 on the next page demonstrates the “smoothing” effect of using a five year moving average of interest and inflation. Please note that this is not a recommendation that you use a 5 or 30 year moving average, just that you consider this as select the interest or inflation rates that you will use, as any “current” extremes of either interest or inflation will likely distort future projections.

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706.10 – As a point of reference, we prepared our first reserve study in 1982. We did NOT use the greater than 20% inflation rates nor the greater than 15% interest rates in our funding plans at that time. Without the benefit of exhibit 7 – 14 we were being somewhat speculative, but used a 6% rate for both interest and inflation, simply because we could not believe that the then current high rates would last. Turns out it was a fairly lucky guess based on the average long term rates.

Exhibit 7 - 13

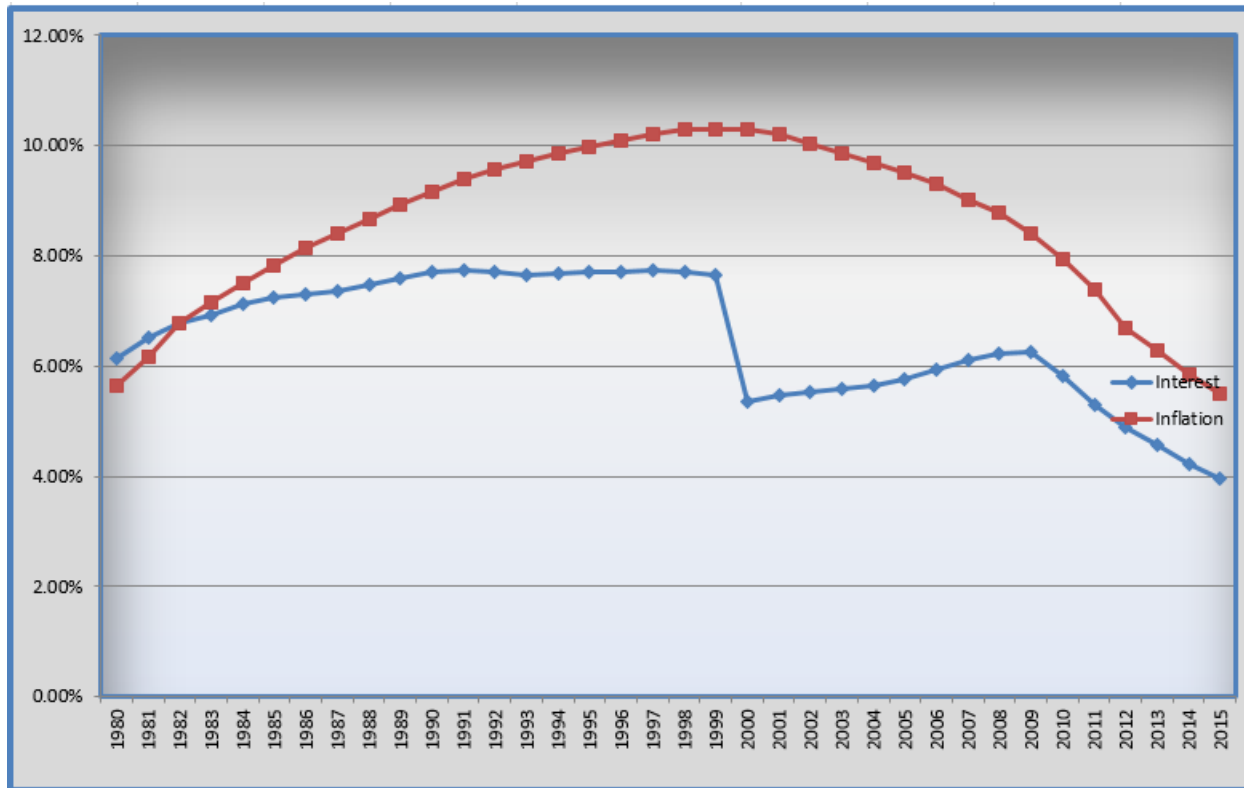


706.11 – Exhibit 7 – 13 above uses a five year moving average trend line, but since interest rates and reported inflation rates have both stayed low for several years, there isn't a significant difference between annual rates and the five year moving average rates at the present time. Contrast this with the 30-year moving averages presented in exhibit 7 – 14. The 30-year averages are significantly higher because both inflation and interest were coming off highs established in the 1980's.

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Exhibit 7 - 14

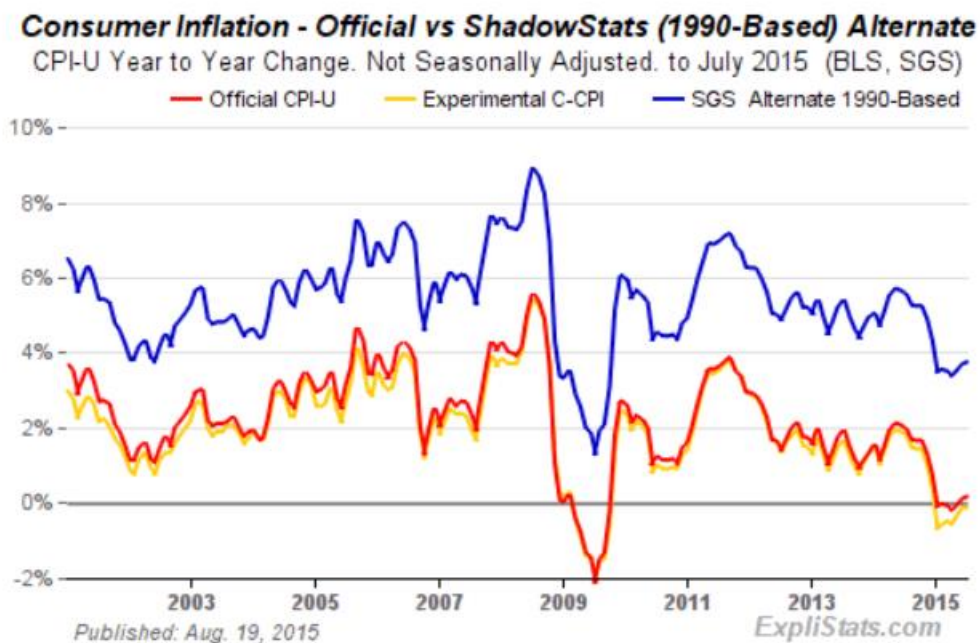


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706.12 – One last exhibit worth reviewing is the analysis of inflation rates compiled at website www.shadowstats.com. These individuals have calculated actual inflation rates without the manipulation used by the US Department of Labor in recent years. Cynics among you may appreciate this information. It is provided as simply another data point to consider in selecting the inflation rate that you use in your reserve study. This chart shows actual inflation rates of nearly 4%.

Exhibit 7 – 15



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7 – Reserve Study Financial Analysis

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8 – Understanding Percent Funded

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[803 – Comparisons of Methods](#)

[804 - ICBI Definitions](#)

[805 - When Percent Funded Will Not Work](#)

800 - Introduction to Percent Funded

$$\frac{\text{Actual balance}}{100\% \text{ funded balance}} = \text{Percent funded}$$

800.1 - Looks pretty simple, doesn't it? But, in this case, looks are deceiving - and that's a problem when so many people assume they understand "percent funded" and rely upon it in their reserve study funding plan. In practice, there are several variations that can be used to calculate both "actual balance" and "100% funded balance". Each can result in significant differences in the resulting ratio. This chapter analyzes the concept of "percent funded", shows the different ways it can be calculated, and demonstrates how dramatically different results can occur depending upon the calculation method being used.

800.2 – "Percent funded" is a term that attempts to define where you are currently at in your efforts to fund reserves. It is generally used as a method to compare actual accumulated reserve funds to a calculated "ideal" balance. Stated differently, the calculation is a ratio that measures your reserve fund's net financial resources against the amount you technically should have funded (the "ideal" or "100% funded balance"). However, this simple ratio can be misleading unless you understand the assumptions and estimates underlying the calculation, and know which of the three major calculation methods is being used to determine the "100% funded balance." Complete reliance on percent funded can result in - and has, in too many circumstances resulted in - an association finding itself either seriously underfunded when it is time to make significant expenditures, or overfunded because of using the wrong formula.

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8 – Understanding Percent Funded

800.3 – Community Associations Institute (CAI) National Reserve Study Standards defines the term “Percent Funded” as follows:

“Percent Funded is the ratio, at the beginning of the Fiscal Year, of the *actual (or projected) Reserve Balance* to the *100% Funded Balance*, expressed as a percentage.”

The authors believe this definition has three significant defects:

- (1) Percent funded can be calculated at any point in time. The insertion into the definition of the words “at the beginning of the Fiscal Year” amounts to both a significant assumption and a limitation that does not exist in actual practice.
- (2) The term “Reserve Balance” is both undefined and ambiguous, is in conflict with accounting terminology, and may be calculated (though inappropriately) many different ways in actual practice.
- (3) The term “100% Funded Balance” is effectively undefined, as the CAI “definition” presents a circular discussion that “100% funded” is equal to “fully funded” is equal to “fully-funded balance (FFB),” and FFB inappropriately relies upon accounting terminology (depreciation) that has a very precise - and different - meaning. The calculation presented as part of this definition includes a consideration of interest earnings which, in fact, is completely unrelated to the concept of ideal funding. Interest is considered only as part of creating a funding plan, not as part of a calculation to determine how much should be accumulated. Further, the definition fails to consider the several different calculation methods commonly used and incorporated into state statutes.

Our reservations with respect to the CAI definition are also shared by the International Capital Budgeting Institute (ICBI), which has created its own definition of percent funded.

800.4 – The ICBI’s definition of the term is:

“Percent Funded is the ratio of the reserve fund’s net financial resources to the 100% Funded Balance, **calculated using the inflation-adjusted cost method**, expressed as a percentage.” It is the authors’ opinion that the ICBI definition is superior to the CAI definition in that: (1) it does not insert a time limitation; (2) it appropriately addresses “net financial resources,” which is a defined term; and (3) it defines the calculation method to be used in making the calculation.

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8 - Understanding Percent Funded

800.5 - The concept of percent funded was initially developed to address the “strength” of the reserve fund. It was originally formulated using a simplistic, straight-line calculation based on the equally simplistic “component method” of calculating reserve funding requirements. Percent funded is now so widely used that it is necessary to have an understanding of both the limitations of this method and the calculations underlying “percent funded.” As we demonstrate below, the term “strength” is relative; is not always accurate; and cannot be depended upon as a general tool. It is far more important to know what the “peak expenditure year” is, and what the net reserve balance will be during that year.

801 - Calculation Formula

801.1 - The percent funded calculation compares the amount of the reserve fund’s net financial resources accumulated to the amount that technically “should have been” accumulated. The amount that technically “should have been” accumulated is referred to as the “ideal” or “100% funded balance.”

801.2 – Because “percent funded” has been widely used over the last few years as a measure of the “strength” of the reserve fund, it has become a commonly accepted concept. But that doesn’t mean that it has always been understood. Common practice has evolved amongst many reserve practitioners to assign rating “values” to percent funded categories. While there is no generally accepted standard regarding percent funded, the table below represents what we have seen assigned as the most commonly used rating values:

0% to 30% funded - Weak
30% to 70% funded - Adequate
70% to 100% funded - Strong

This rating of values is a gross oversimplification and can be misleading.

801.3 - Exhibit 8-1 below provides an example of an association that is 85% funded and still requires a special assessment to meet its obligations. The commonly accepted “70% is strong funding” rule clearly does not apply here.

801.4 - Exhibit 8-2 below provides an example of an association that is only 23% funded but does not require a special assessment to meet its obligations. The commonly accepted “30% is weak funding” rule clearly does not apply here.

Reserve Studies – The Complete Guide

8 - Understanding Percent Funded

801.5 - These two examples demonstrate the drawback of relying on general statements and rating categories. Because percent funded fails to address the timing of expenditures, it cannot be used as a reliable indicator of the “strength” of a reserve fund unless it is considered in conjunction with an analysis of the cash flow.

801.6 – Conceptually, there is but a single method of calculating percent funded. No one ever seems to talk about how it is calculated, but everyone seems to believe they know how it is calculated. Again, those assumptions represent an oversimplification that is dangerous, because not all people calculate percent funded in the same manner. The basic calculation that most people believe is the ONLY way to calculate percent funded is shown below, with actual balance of cash and investment (all financial instruments) reserve funds accumulated (actual balance) as the numerator, and the 100% funded balance as the denominator.

$$\frac{\text{Actual balance}}{100\% \text{ funded balance}} = \text{Percent funded}$$

801.7 - As far as this definition goes, it is accurate. The problem is that this definition does not go nearly far enough. In the paragraphs below, we demonstrate why this simplistic view is inadequate. The example above is a calculation of percent funded at a single point in time: the current date, the first day of the financial forecast period. This formula is simply repeated in future periods using amounts projected to exist at that future period.

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8 - Understanding Percent Funded

Exhibit 8-1

Component List - Summary by Category

Category	Useful Life	Remaining Life	Current Cost	Future Cost	Balance Allocation	Ideal Funding
Paint	15	0.5	\$ 325,000	\$ 328,264	\$ 284,721	\$ 314,167
Lighting	20	5.5	9,250	10,325	0	6,706
Doors	25	10.5	21,250	26,211	0	12,325
Structures	2	0.5	5,000	5,050	3,399	3,750
Roofing	30	0.5	240,000	242,410	213,881	236,000
Totals			\$ 600,500	\$ 612,260	\$ 502,000	\$ 572,948

Percent funded

87.6%

	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19	12/31/20
Beginning Balance	502,000	1,935	46,529	86,580	132,610	173,901
Annual Contributions	44,000	44,440	44,884	45,333	45,787	46,244
Special Assessment	30,000	-	-	-	-	-
Other Revenues	-	-	-	-	-	-
Loans	-	-	-	-	-	-
Annual Interest	1,601	154	423	696	974	1,223
Annual Expenditures	575,667	-	5,256	-	5,469	10,323
Balances	1,935	46,529	86,580	132,610	173,901	211,046
Ideal Balance	37,162	72,756	104,464	142,837	177,192	208,084

Annual Cash Flow Analysis - 30 Years

Year	Fiscal Year End	Beginning Balance	Income	Investment Earnings Net of Taxes	Expenses	Ending Balance
1	12/31/15	\$ 502,000	\$ 74,000	\$ 1,601	\$ (575,667)	\$ 1,935
2	12/31/16	1,935	44,440	154	-	46,529
3	12/31/17	46,529	44,884	423	(5,256)	86,580
4	12/31/18	86,580	45,333	696	-	132,610
5	12/31/19	132,610	45,787	974	(5,469)	173,901
6	12/31/20	173,901	46,244	1,223	(10,323)	211,046
7	12/31/21	211,046	46,707	1,476	(5,692)	253,536
8	12/31/22	253,536	47,174	1,767	-	302,477
9	12/31/23	302,477	47,646	2,061	(5,924)	346,260
10	12/31/24	346,260	48,122	2,361	-	396,743

This exhibit demonstrates an association that is 85% funded on the first day of the funding period, yet is still required to make a special assessment in the first year of the forecast period. The commonly accepted “70% is strong funding” rule clearly does not apply here.

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8 - Understanding Percent Funded

Exhibit 8-2

Component List - Summary by Category

Category	Useful Life	Remaining Life	Current Cost	Future Cost	Balance Allocation	Ideal Funding
Paint	15	13.5	\$ 353,000	\$ 456,896	\$ 9,811	\$ 45,100
Lighting	20	5.5	16,000	17,859	2,523	11,600
Doors	25	10.5	21,250	26,211	2,681	12,325
Structures	2	0.5	5,000	5,050	3,750	3,750
Roofing	30	15.5	240,000	327,138	25,234	116,000
Totals			\$ 635,250	\$ 833,153	\$ 44,000	\$ 188,775

Percent Funded

23.3%

Annual Cash Flow Analysis - 30 Years

Year	Fiscal Year End	Beginning Balance	Income	Investment Earnings Net of Taxes	Expenses	Ending Balance
1	12/31/15	\$ 44,000	\$ 44,000	\$ 405	\$ (5,050)	\$ 83,355
2	12/31/16	83,355	45,100	675	-	129,130
3	12/31/17	129,130	46,228	954	(5,256)	171,056
4	12/31/18	171,056	47,383	1,242	-	219,681
5	12/31/19	219,681	48,568	1,538	(5,469)	264,317
6	12/31/20	264,317	49,782	1,687	(49,104)	266,682
7	12/31/21	266,682	51,027	1,845	(5,692)	313,861
8	12/31/22	313,861	52,302	2,168	-	368,331
9	12/31/23	368,331	53,610	2,500	(5,924)	418,516
10	12/31/24	418,516	54,950	2,843	-	476,310

This exhibit demonstrates that an association only 23% funded (which is in the “weak” category used by most reserve professionals in measuring reserve fund strength) can achieve a 100% funded ratio at the end of the 30-year forecast period without ever making a special assessment. Again, the commonly accepted rule regarding reserve fund strength does not apply.

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8 - Understanding Percent Funded

801.8 - The assumption that only cash or investments represent the actual balance is a simplistic, even primitive, concept that fails to consider the actual operations of some associations. This concept was developed in a simpler time and was flawed to begin with, as it failed to consider basic accounting concepts that have existed for decades. We know that many people object to inserting the word “accounting” into a discussion about reserves, but the fact is that a reserve study is simply one form of a long-term capital budget, a standard accounting and financial planning tool that had existed for decades before the more modern concept of reserve studies was introduced. The fact that valid, existing budgeting practices were overlooked is unfortunate, as it has created a negative long-term impact on the community association industry, both in ill-defined and inconsistent practices by reserve practitioners; and in confusion to readers of reports because of undefined terms, unstated assumptions, and a general lack of consistency in both calculations and financial reporting. Below we look at calculations for both the numerator (actual balance) and denominator (ideal balance or 100% funded amount).

801.9 – Actual Balance. The generally accepted assumption that actual balance is equal to cash and investments on hand, or estimated at the beginning of the forecast period, may actually work for many associations that have very simple operations. But it is based on the assumption that no other reserve assets exist, and that there are no existing reserve liabilities. That is not a valid assumption for many associations. If a commonly used calculation method is to be relied upon as a standard, it must be consistently calculated for all associations; there can’t be different calculation methods for different associations.

801.10 - The only way to achieve a single calculation method that will accommodate all associations is to use the proper definitions of what determines the “actual balance.” The term “actual balance” was a poor choice that unfortunately has subsequently even become entrenched in some state statutes. In fact, some state statutes prohibit the inclusion of any items other than FDIC-insured deposits in the calculation of percent funded. That definition is extreme, as it excludes money market funds, U.S. Treasuries, or other government investments that are commonly a legitimate part of association reserve fund investments. In order to reach a reasonable calculation, the definition of the numerator must consider all possible items; it can’t be limited to just cash and investments.

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8 - Understanding Percent Funded

801.11 - The correct terminology for the numerator in the calculation formula for percent funded is “reserve fund net financial resources.” This definition considers all assets and liabilities of the reserve fund and can therefore be used by all associations. It is possible that additional types of assets and liabilities other than those listed below may exist, but these are the most commonly encountered. Each are listed and discussed below.

801.12 - Examples of reserve fund assets commonly encountered are:

- Cash
- Investments
- Assessments Receivable
- Special Assessment Receivable
- Interest Receivable
- Notes Receivable
- Prepaid and Other Assets
- Amounts Due from Operating Fund

801.13 - Examples of reserve fund liabilities commonly encountered are:

- Accounts Payable
- Deferred Income (Prepaid Reserve Assessments)
- Amounts Due to Operating Fund
- Capital Leases Payable (not included in funding plan)
- Notes Payable (not included in funding plan)
- Other Liabilities

801.14 - Other possible assets, such as operating budget excess at end of year, or capital contributions, or transfer fees, are generally not recorded as assets but may be included in the net resources available calculation if reasonably estimable.

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8 - Understanding Percent Funded

801.15 - A table for calculation of net resources available might look like this:

Description	Amount
Cash	\$
Investments	\$
Assessments and Special Assessments Receivable	\$
Interest Receivable	\$
Notes Receivable	\$
Prepaid and Other Assets	\$
Amounts Due From or To Operating Fund	\$
Accounts Payable	\$
Deferred Income (Prepaid Reserve Assessments)	\$
Amounts Due to Operating Fund	\$
Capital Leases Payable (not included in funding plan)	\$
Notes Payable (not included in funding plan)	\$
Other Liabilities	\$
Estimated reserve assessments from interim date to year end	\$
Estimated interest earnings from interim date to year end	\$
Estimated reserve expenditures from interim date to year end	\$
Estimated transfer of operating budget excess at end of year	\$
Estimated capital contributions	\$
Estimated Transfer fees	\$
Other	\$
Total funds available for reserves beginning balance	\$

801.16 - A further consideration borrowed from the accounting world is the concept of liquidity. In the general world of finance, current assets consist only of those considered to be convertible into cash (liquid) within a one-year period. Special rules apply to certain of the categories identified above.

801.17 – Cash is generally considered at face value. However, if the association is either outside of the USA or consistently deals in foreign currencies, then foreign currency adjustments may have

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8 - Understanding Percent Funded

to be made. If an association should hold an alternative currency, such as Bitcoin, as part of its cash, it should be valued at current market value at the effective date of the study, or as close thereto as possible.

801.18 – Investments are generally reported at market value. A consideration is that the stated term of an investment is not necessarily the controlling factor when considering the liquidity of the reserve fund. For instance, an association may invest in a 5-year certificate of deposit in order to receive a higher rate of return. While that is above the general one-year rule for consideration of liquidity, the certificate of deposit would still generally be considered a liquid investment because it can usually be converted to cash in a very short time period, although the association may suffer a financial penalty for early liquidation of the certificate of deposit. If that penalty is significant, it should be deducted from the face amount of the investment. If that penalty is not significant, it can be ignored.

801.19 – Receivables are generally included at face value. However, if the association anticipates collectability problems, estimated uncollectible accounts should be deducted from the gross receivable amounts.

801.20 – Prepaid and other assets are rare, but if they exist, they should be evaluated by the association for collectability and liquidity to determine if they are net resources that will be available for future reserve funding.

801.21 – Amounts due from operating fund present a special issue. It is not uncommon for an association to run short on its operating budget and borrow money from the reserve fund to avoid either a special operating assessment or the need to borrow from a commercial lender to fund ongoing operations. The reserve practitioner needs to evaluate if this amount is collectible. If the amount is material, and the association has not presented a proposed budget and plan for the repayment of the amounts borrowed within a one-year period, then these amounts should be excluded from net resources available for reserve funding.

801.22 – Accounts payable and other liabilities should be deducted from reserve assets in determining the amount of reserve fund net resources available for reserve funding, as they represent resources committed for prior activities and so will not be available for future periods.

801.23 – Capital leases are the equivalent of notes payable; they are simply a different legal form of debt instrument. They are normally recorded as liabilities on the association financial statements. Capital leases are those leases wherein the association makes a down payment and

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monthly payments over a stated period, usually of several years, then has a bargain buyout of the underlying assets at the end of the lease period, and takes title to the underlying assets. This is a common method of financing golf carts and copy machines. Capital leases differ from an operating lease in that an operating lease contains no bargain purchase at the end of the lease period, nor does the association generally take title to the underlying asset at the end of the lease period.

801.24 - Capital leases should be deducted from reserve assets in determining the amount of reserve fund net resources available for reserve funding, UNLESS the lease payments are considered as reserve expenditures in the reserve funding plan. In that case, the capital leases are ignored, as repayment is already part of the funding plan.

801.25 – Notes payable should be deducted from reserve assets in determining the amount of reserve fund net resources available for reserve funding, UNLESS the note payments are considered as reserve expenditures in the reserve funding plan. In that case, the notes payable are ignored, as repayment is already part of the funding plan.

801.26 – Ideal Balance. The conceptual calculation of the denominator, the 100% funded balance, or ideal balance, is a little more complex, as it considers the estimated life of all components, effective age, and their estimated cost. In calculating ideal balance, the normal equation for each component consists of two parts: calculating the “Time Decay Factor,” then applying that factor to the estimated current replacement cost.

801.27 - Percent funded calculation:

Step 1

$$\frac{\text{Effective age}}{\text{Estimated useful life}} = \text{“Time Decay Factor”}$$

Step 2

Time Decay Factor multiplied by the estimated replacement cost = “Time Decay Cost”

801.28 - Time Decay Cost is the amount that should have been accumulated in reserves. (This relies on certain assumptions that are discussed below). For practical purposes, this also translates as the “100% funded balance.”

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8 - Understanding Percent Funded

801.29 - Effective age is the difference between the estimated life and the remaining life. If all estimates were accurate, this is the same as the component's chronological life (number of years since the component was placed in service). Since conditions may have either shortened or lengthened the life of the component, however, effective age can be quite different from chronological age.

801.30 - Let's look at an example. At its most simple level, the calculation of 100% funded balance can be described as follows, using an example of a component with an estimated 10-year useful life, six years since last replaced, and an estimated current cost of \$10,000.

801.31 - **Example 1** – Percent funded calculation:

$$\frac{6}{10} = 60\%$$

$$60\% \times \$10,000 = \$6,000$$

If we follow the assumption that the time decay cost calculated above of \$6,000 is also the 100% funded balance, then \$6,000 becomes the denominator in the percent funded calculation. Assuming actual reserve fund net financial resources of \$4,000, the percent funded calculation is:

$$\frac{\$4,000}{\$6,000} = 66.7\% \text{ funded}$$

Let's look more closely at the factors that are part of this calculation, as any significant changes in estimated life, remaining useful life, or estimated cost can have a significant impact on the calculation of ideal balance - which, in turn, has a significant impact on percent funded. Below are examples of the impact of changes in estimated life, remaining useful life, and estimated cost on the percent funded calculation.

801.32 - **Example 2** – Remaining useful life is determined to be two years, not the four years originally anticipated. The effect of that fact is that effective age is now eight years, rather than six years, so the calculation changes to what is shown below.

Percent funded balance calculation:

$$\frac{8}{10} = 80\%$$

$$80\% \times \$10,000 = \$8,000$$

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8 - Understanding Percent Funded

Percent funded, assuming the same \$4,000 cash balance, is now only 50%.

$$\frac{\$4,000}{\$8,000} = 50\% \text{ funded}$$

801.33 - **Example 3** – Same as Example 1, except that now we've determined that the remaining life is only two years rather than four. The reason is that the original estimated life was wrong, not that excessive deterioration caused an early aging. So now estimated life is only eight years. Effective age is still six years, which makes the calculation as follows.

Percent funded calculation:

$$\frac{6}{8} = 75\%$$

$$75\% \times \$10,000 = \$7,500$$

Percent funded, assuming the same \$4,000 cash balance, is now 53.3%.

$$\frac{\$4,000}{\$7,500} = 53.3\% \text{ funded}$$

801.34 - **Example 4** – Same as Example 1, except that now we've determined that original estimated cost was understated, and the actual replacement cost is \$14,000. The calculation is now different.

Percent funded calculation:

$$\frac{6}{10} = 60\%$$

$$60\% \times \$14,000 = \$8,400$$

Percent funded, assuming the same \$4,000 cash balance, is now only 47.6%.

$$\frac{\$4,000}{\$8,400} = 47.6\% \text{ funded}$$

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8 - Understanding Percent Funded

801.35 - These examples demonstrate how significantly the underlying estimates affect the ultimate percent funded calculation. Some savvy board members attempt to influence the percent funded presentations by not only modifying estimates as demonstrated above, but also by including or excluding components from the funding study to achieve the desired result. That is why we have always recommended having a list of excluded components, so the reader of the reserve study knows which items that an association has the responsibility to maintain have been excluded. (ICBI standards issued in April 2015 require disclosure of excluded components.)

802 - Calculation Methods

802.1 - All of the above examples were based solely on a current cost calculation. Another factor that makes percent funded an unreliable indicator is that there are several methods of selecting the cost factor used in calculating the 100% funded balance, and they can produce dramatically different results. The three generally recognized methods are current cost, future cost, and inflation-adjusted cost.

802.2 - Current cost and future cost calculations are both a result of concepts established in certain state statutes. Inflation-adjusted cost is not specified in any state statutes, but it is the only method supported by logic. The above examples were based solely on a current cost calculation at a single point in time: the first day of the 30-year funding study period. The full impact of selecting one of the three different costing methods over the others is far more dramatic when viewing changes in percent funded over time, annually for the 30-year funding period.

802.3 - Current cost – This concept assumes that current cost is the only valid indicator to be used in determining 100% funded cost for a percent funded calculation. While that may work for the current date, meaning the first day of the 30-year funding period, is not valid for any future period, as it fails to account for the effects of inflation. Current cost method means comparing current optimal (100% funded) amount to current reserve cash balances. That works ONLY for a single point in time, the start date of a reserve study. But statutes in certain jurisdictions require current cost as the basis for calculation. Using current cost as a basis for calculation for any year beyond the start date of the reserve study is meaningless, as it will result in underfunding.

802.4 - Using the current cost method, the ideal contribution for each year of the 30-year funding period would be the same, until a new current cost is established. Based on the above assumptions, using the current cost concept means that if an association were 100% funded and remained that

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way each year, current association members would NOT be paying assessments based on inflated costs, and the association would end up being underfunded. Current members would not be paying the full cost of the time decay of components, the amount that they have “consumed.” This is not fair to future members, as the underpayment burden is passed on to them.

802.5 - Future cost – This concept correctly applies inflation, but then incorrectly requires that you use the inflated cost for the current period 100% percent funded calculation. Since an exact definition of application of future cost calculations is not made in any state statute, anyone making a future cost percent funded calculation must also make some assumptions. For instance, is future cost the inflated cost at the first replacement cycle? Or is it the inflated cost at the end of the 30-year funding study period? The future cost method calculates future total inflated costs and then averages that future cost back to all prior periods, including the start date of the study. This method is commonly used by many reserve practitioners.

802.6 - An assumption must also be made as to how to allocate the 100% funded amount to each year within the 30-year funding period. Since the requirement when using this concept is to use future cost in the calculation, the probable method is to divide that future inflated cost by the estimated life, and apply it equally to all years. Since future cost changes at each replacement cycle, the most probable assumption (using our example above) is that the amount would increase only at each 10-year cycle.

802.7 - Based on the above assumptions, using the future cost method means that if an association were 100% funded under the future cost concept and remained that way each year, current association members would be paying assessments based on future inflated costs that had not yet occurred. This is not fair to current members.

802.8 – Inflation-adjusted cost - This concept assumes that current cost is used for the current period only (first day of the 30-year funding period), and that future replacement costs are inflated annually for purposes of the percent funded calculation. This gives you the same calculation as the current cost method for the current date, and accounts for the effects of inflation so that future costs are properly stated. Current members are always being assessed based on the “then” current cost. This cost concept is fair for all members, both current and future. Inflation-adjusted cost method uses current cost for the start date of the study, and the pro-rata future cost based on EACH year of the study, not the total cost at the end of the study. That is the method used by us in our reserve study company’s reports, and is the method mandated by ICBI in Generally Accepted Reserve Study Principles.

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802.9 - The difference between the future cost and inflation-adjusted cost methods, even when using the same inflation and interest rate assumptions, is that the future cost method will result in a lower percent funded calculation at the start of the study projection period, thereby requiring a higher annual contribution to achieve 100% funded. While that is a commonly used approach, we believe the inflation-adjusted method to be superior. It provides higher percent funded calculations in the early part of the 30-year projection period, but has a higher annual increase curve when compared to the future cost method. Both methods result in approximately the same amount of reserve contributions being raised over the 30-year period.

803 – Comparison of Methods

803.1 - Let's look at a comparison of calculations made under each of the three methods below. First, let's calculate the future inflated cost, using a 2% inflation factor for purposes of this example. In our example, using the same component project as used in the above examples, we're assuming the effective date of the reserve study is January 1, 2013 (first day of 30-year funding period), and that the last replacement was exactly six years ago, with a 10-year estimated life. (See exhibit 3 on next page.)

Note how different the costs are under each of the three methods.

Current cost is the uninflated cost as of the first date of the study, the date that current cost was determined. There is only one current cost. It does not readjust each year as that cost changes; it readjusts only upon replacement cycle.

Inflation-adjusted cost readjusts each year, and matches the effect of inflation based on the inflation assumption used in calculating future expenditures.

Future cost looks to the next replacement date and uses that future replacement cost to calculate percent funded.

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Exhibit 8-3

Year #	Year	Replace Cost Used in % Calculation			Notes
		Current	Inflation Adjusted	Future	
	1/1/13	\$ 10,000	\$ 10,000	\$ 10,824	Current cost, first day of study
1	2013	\$ 10,000	\$ 10,202	\$ 10,824	
2	2014	\$ 10,000	\$ 10,408	\$ 10,824	
3	2015	\$ 10,000	\$ 10,618	\$ 10,824	
4	2016	\$ 10,000	\$ 10,832	\$ 10,824	
5	2017	\$ 10,824	\$ 11,051	\$ 10,824	Replace year
6	2018	\$ 10,824	\$ 11,274	\$ 13,195	
7	2019	\$ 10,824	\$ 11,501	\$ 13,195	
8	2020	\$ 10,824	\$ 11,734	\$ 13,195	
9	2021	\$ 10,824	\$ 11,970	\$ 13,195	
10	2022	\$ 10,824	\$ 12,212	\$ 13,195	
11	2023	\$ 10,824	\$ 12,458	\$ 13,195	
12	2024	\$ 10,824	\$ 12,710	\$ 13,195	
13	2025	\$ 10,824	\$ 12,966	\$ 13,195	
14	2026	\$ 10,824	\$ 13,228	\$ 13,195	
15	2027	\$ 13,195	\$ 13,495	\$ 13,195	Replace year
16	2028	\$ 13,195	\$ 13,768	\$ 16,084	
17	2029	\$ 13,195	\$ 14,045	\$ 16,084	
18	2030	\$ 13,195	\$ 14,329	\$ 16,084	
19	2031	\$ 13,195	\$ 14,618	\$ 16,084	
20	2032	\$ 13,195	\$ 14,913	\$ 16,084	
21	2033	\$ 13,195	\$ 15,214	\$ 16,084	
22	2034	\$ 13,195	\$ 15,521	\$ 16,084	
23	2035	\$ 13,195	\$ 15,835	\$ 16,084	
24	2036	\$ 13,195	\$ 16,154	\$ 16,084	
25	2037	\$ 16,084	\$ 16,480	\$ 16,084	Replace year
26	2038	\$ 16,084	\$ 16,813	\$ 19,607	
27	2039	\$ 16,084	\$ 17,152	\$ 19,607	
28	2040	\$ 16,084	\$ 17,499	\$ 19,607	
29	2041	\$ 16,084	\$ 17,852	\$ 19,607	
30	2042	\$ 16,084	\$ 18,212	\$ 19,607	End of funding period

803.2 - Exhibit 8-4 below is a percent funded comparison for the 30-year funding period based on the funding model created for the inflation-adjusted calculation, which, for that method, keeps the association at 100% funded for each year of the 30-year period. This calculation assumes 1% interest earnings and a 15% tax rate.

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Exhibit 8-4

Year #	Year	Balance end of year	Percent Funded as Calculated		
			Inflation Adjusted	Current	Future
1	2013	\$ 7,140	100.0%	100.9%	94.2%
2	2014	\$ 8,325	100.0%	101.9%	96.1%
3	2015	\$ 9,555	100.0%	103.1%	98.1%
4	2016	\$ 10,829	100.0%	104.4%	100.0%
5	2017	\$ 1,105	100.0%	65.4%	102.1%
6	2018	\$ 2,254	100.0%	85.4%	85.4%
7	2019	\$ 3,450	100.0%	93.1%	87.2%
8	2020	\$ 4,692	100.0%	97.9%	88.9%
9	2021	\$ 5,984	100.0%	101.5%	90.7%
10	2022	\$ 7,325	100.0%	104.5%	92.5%
11	2023	\$ 8,717	100.0%	107.2%	94.4%
12	2024	\$ 10,164	100.0%	109.8%	96.3%
13	2025	\$ 11,665	100.0%	112.2%	98.2%
14	2026	\$ 13,222	100.0%	114.5%	100.2%
15	2027	\$ 1,349	100.0%	44.7%	102.2%
16	2028	\$ 2,753	100.0%	77.1%	85.6%
17	2029	\$ 4,212	100.0%	89.2%	87.3%
18	2030	\$ 5,731	100.0%	96.1%	89.1%
19	2031	\$ 7,307	100.0%	101.0%	90.9%
20	2032	\$ 8,946	100.0%	104.9%	92.7%
21	2033	\$ 10,646	100.0%	108.3%	94.6%
22	2034	\$ 12,412	100.0%	111.3%	96.5%
23	2035	\$ 14,244	100.0%	114.2%	98.4%
24	2036	\$ 16,148	100.0%	116.9%	100.4%
25	2037	\$ 1,649	100.0%	68.8%	102.5%
26	2038	\$ 3,363	100.0%	91.7%	85.8%
27	2039	\$ 5,147	100.0%	100.5%	87.5%
28	2040	\$ 6,999	100.0%	105.9%	89.2%
29	2041	\$ 8,924	100.0%	110.0%	91.0%
30	2042	\$ 10,922	100.0%	112.9%	92.8%

When using the same actual funding plan, the current cost concept is very consistent in reporting percent funded at more than 100%, because it relies upon a lower denominator. The future cost concept is very consistent in reporting percent funded at less than 100%, because it relies upon a higher denominator.

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804 - Definitions

804.1 - Fully Funded Balance is another term commonly used within the industry that has multiple meanings, depending upon whom you ask. Here is the official CAI definition: “Fully Funded Balance (FFB) is the Reserve balance that is in direct proportion to the fraction of life ‘used up’ of the current Repair or Replacement cost. FFB is calculated as follows:

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}”$$

CAI is identifying Fully Funded Balance as being the 100% funded amount at any given point in time. Unfortunately, we have found there to be two problems with this definition: (1) the ambiguous meaning of “Reserve Balance”, and (2) the implication of actually being fully funded.

804.2 – Fully Funded can only refer to a single concept. That single concept is full funding of the entire replacement cost, not a percent funded amount or any amount less than the full funding of the replacement cost. Let’s look at an example of how this would work under the current CAI definition. A component with a \$10,000 cost and a 10-year useful life, that is presently seven years old, would be “fully funded” if the association had accumulated \$7,000 (7/10 of \$10,000). If, however, the association suddenly realized that instead of a three-year remaining life, the component needed to be replaced now, the replacement cost would still be \$10,000 but they would only have \$7,000. They would not be fully funded.

804.3 – Instead of defining the interim 100% funded amount as being “fully funded,” it should be identified as “100% incrementally funded.” That is a far more accurate description of the status and does not imply that the association has sufficient funds at an interim date to replace the component.

804.4 - CAI National Reserve Study Standards Definitions

Percent Funded is the ratio, at the beginning of the Fiscal Year, of the *actual (or projected)* Reserve Balance to the *100% Funded Balance*, expressed as a percentage.

Fully Funded Balance (FFB) is the Reserve balance that is in direct proportion to the fraction of life “used up” of the current Repair or Replacement cost. FFB is calculated as follows:

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

Current Replacement Cost is the cost of replacing, repairing, or restoring a Reserve Component to its original functional condition.

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Effective Age is the difference between Useful Life and Remaining Useful Life (not always equivalent to chronological age, since some components age irregularly).

Useful Life (UL) is the estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed, in its present application or installation.

804.5 - ICBI definitions

Percent Funded is the ratio of the reserve fund's net financial resources to the 100% Funded Balance, **calculated using the inflation-adjusted cost method**, expressed as a percentage.

Reserve fund net financial resources are the excess of reserve fund assets over liabilities that are available for future reserve funding.

Incrementally funded percentage is the percent funded at any given point in time. As an example, 100% funded is the situation of having reserve fund net resources equal to the ideal or 100% funded calculated amount on an incremental basis at a given point in time.

Fully Funded Balance is the situation of having reserve fund net resources equal to the current replacement costs of all components.

805 - When Percent Funded Will Not Work

805.1 – The percent funded calculation does not work unless three parameters exist: (1) replacement cost, (2) useful or cycle life, (3) remaining or used life. All three parameters must be known, or assumed, before the percent calculation can be made. So when do these three parameters not exist? One-time expenditures would be an example, because while they may have a remaining life (estimate of time until the one-time expenditure will be made), they do not have a useful or cycle life. Likewise, contingency does not have a useful life, so also cannot be calculated.

805.2 – The percent funded calculation can also be manipulated based upon what the authors believe are inappropriate methods. As an example, if an association has two different buildings with roofs that are the same except that one requires replacement in two years and the other in 12

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years, the authors believe these should be treated as two separate components. Some reserve study practitioners will combine the two roofs as a single component and use the average between the two remaining lives as the single remaining life for purposes of the cash flow projection and percent funded calculation. This not only provides an inaccurate cash flow, but skews the percent funded calculation.

805.3 – The authors have observed several instances of this kind of inaccuracy in reserve study reports completed by other practitioners. Our initial thoughts were that this was likely done in an attempt to limit the number of components listed in the reserve study, as the flat database structure used by virtually all reserve study software does not allow multi-level components. That leaves practitioners with grouping items inappropriately as the only means of limiting the number of components.

805.4 – Another possibility is that such reserve practitioners are just lazy, and do not want to have too many components. We also recognize that some may purposely combine components for the express purpose of “enhancing” the percent funded disclosure.

805.5 – The authors have also noted that some reserve study practitioners insert interest earnings factors into the percent funded calculation. We conceptually understand why, but reject this assumption because we believe the original intent of the percent funded concept was to make the calculation based on cost only.

805.6 – Including interest earnings in the percent funded calculation as an offset to the inflation rate dilutes the inflation rate, reducing the denominator in the percent funded calculation, which results in a higher percent funded ratio.

805.7 – Essentially, this assumes that interest earnings, which can be estimated and calculated, would accumulate in addition to reserve assessments, and means that assessments could be reduced by the amount of interest earnings. The result is that less money is required in early years because of the accumulation of interest in the reserve fund and because of compounding of interest.

805.8 – The net impact of including interest in the percent funding calculation is that the denominator of the percent funded calculation is reduced, thus resulting in a higher percent funded calculation. This is the method adopted by both CAI and APRA. The authors find this method to be inappropriate.

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9 – Reserve Study Financial Reporting Framework

900 - Introduction

901 - Comparisons

9.1 - Appendix – ICBI Reporting Standards

9.3 – Appendix – Sample Report

Introduction

900.1 – Reserve studies are financial reports. This concept seems to have escaped the majority of early pioneers of the reserve study industry, who appear to have focused solely on the physical analysis. Even the standards adopted purposely left the reporting aspects of reserve studies up to the individual reserve practitioners. While some practitioners do a respectable job, many do not. The key aspect overlooked by too many is that the reserve study industry can never evolve into a profession until there is consensus on both the underlying principles of reserve studies and the reports produced by reserve study practitioners.

900.2 – Most people, including reserve practitioners, simply have no idea how loose the standards are for reserve practitioners. The best way to understand the situation is to look at what would happen if CPAs performing audits of associations adhered to a set of rules similar to the CAI and APRA standards for reserve practitioners. Here are the results of what CPAs might do in association financial statements:

CPA #1 includes assessments receivable valued at \$100,000 in the balance sheet. (That's the normal approach.)

CPA #2 includes assessments receivable valued at \$35,000, but puts it in the income statement.

CPA #3 includes assessments receivable valued at \$50,000, but buries it in the footnotes to the financial statements in a narrative discussion only.

CPA #4 EXCLUDES assessments receivable completely, and provides NO DISCLOSURE that he decided to leave them off the report.

900.3 – As hard as it is to believe, all of those positions would be allowable under a set of accounting standards similar in content to the CAI and APRA standards. For this reason, the International Capital Budgeting Institute (ICBI) adopted strict component and reporting standards. They saw the necessity to treat components and reports in the same manner. Legitimate valuation differences may still exist, as these are based on professional judgment, but the gap in valuations should be narrowed.

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900.4 - Reserve study reports are a form of budgeting; they are financial projections. In early 2015, the ICBI established a financial reporting framework for capital budget reports that includes what are commonly referred to in the homeowner's association industry as reserve studies.

900.5 – The financial reporting standards were created to overcome the lack of consistency of financial reporting regarding capital budget financial projections by providing a consistent format. When these financial reporting standards are combined with the calculation and software standards, the result is the creation of reports that can be relied upon and compared from one reserve professional to another. This state of affairs would be similar to the established financial reporting framework that exists within the business community, or the standardized reporting formats and underlying accounting principles used by the accounting profession.

900.6 – In addition to providing consistent formatting, the ICBI reporting framework also considers the different users of reserve study reports, as discussed below in paragraphs 900.11 to 900.13. After all, the purpose of the report determines how it is shaped. The importance of the format and content of the reserve study cannot be overstated. The quality of the physical analysis doesn't matter if it can't be communicated adequately. To paraphrase Scottish novelist Andrew Lang, "Some people use statistics like a drunk uses lampposts—for support rather than illumination. Numbers can be twisted and abused to support false claims, and even correct data is sometimes misinterpreted." We have seen extremely detailed reserve study reports being used to support positions, but failing miserably in their ability to communicate the results of the study.

900.7 – Most people today don't realize that the accounting profession went through a similar process in establishing both financial reporting and valuation (calculation) standards nearly 100 years ago. While there have been notable exceptions in adherence to these standards, they have been rare. , The overall result of accounting standardization has been a general acceptance and reliance on the financial reports by both the public and professionals. The consistency and comparability of financial reporting has also resulted in a greater level of understanding by the users of the financial reports. It is anticipated that standardization of reserve study financial projections will have a similar result.

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900.8 - The ICBI standards create uniform reporting requirements which serve the needs of all users, while still preserving the flexibility for reserve practitioners to produce customized exhibits in addition to what is contained in the required standardized exhibits. This balance was achieved by implementing three requirements that are radically different from anything contemplated in CAI or APRA standards:

- 1) ICBI standards require that the reserve practitioner issue one or two-page narrative reports that describe the reserve study engagement and the results thereof.
- 2) Under ICBI standards, the reserve study consists of several summary-level financial exhibits and narrative disclosures regarding assumptions, exclusions, etc. that meet the needs of most association members, bankers, and others.
- 3) ICBI standards recommend detail-level financial exhibits for association management, and allow reserve practitioners to adopt any formats they deem appropriate.

900.9 - The ICBI-recommended overall report consists of:

- Cover Page
- Table of Contents
- Report of Reserve Practitioner
- Statement of Position
- Cash Flow Analysis (30 Years)
- Summary Expenditure Analysis (30 Years)
- Summary Component List
- Reserve Study Narrative Disclosures
- Required Supplemental Information
- Regulatory Disclosures
- Supplemental Information

900.10 - The result is a standardization of reporting to provide consistent, reliable formats while still leaving the flexibility for reserve practitioners to present any information they desire as supplemental information. The second part of reliability of reports comes from the underlying reserve study principles related to components and calculations.

900.11 - There is one additional issue that directly impacts the manner in which reserve study reports are prepared, and that is the matter of the intended reader of the report. It is apparent that this issue was never addressed in the development of the CAI and APRA standards. Based on the authors' discussions with individuals who were involved in those standards development processes, their intention was not to purposely suggest that very detailed reports are superior to summarized reports; the matter was simply never given any consideration at all.

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900.12 - There are two groups of people that read reserve study reports – (1) members and others who are served best by summary reports, and (2) management and staff that require detailed reports in order to verify accuracy and manage the reserve transactions process. In order to be truly useful to all parties, reserve study reports need to contain both summarized and detailed information.

900.13 - The ICBI reporting standards directly address this issue by requiring summarized financial exhibits only in the reserve study report. However, those standards also allow for the flexibility of providing detailed, component-level financial exhibits as supplemental information. These can be issued as a single report, or broken apart into two separate reports. Our reserve study company typically breaks them into two separate reports, except for small associations where the component level data does not represent an overwhelming amount of detail.

900.14 - Let us clarify that for a relatively small development, or even a larger development that has few components, the detail component list may be only a page or two long. That's easy for people to deal with. But in larger, more complex associations, the number of individual components can number several hundred to several thousand. That's simply too much detail to include in its entirety, and it overwhelms most readers.

900.15 - It's our experience that many reserve practitioners, particularly engineers, seem to be naturally detail-oriented and are therefore biased towards producing very detailed reports. The argument has been presented to us that without the detail, nobody can tell if the report is complete. To us, that argument seems similar to saying that nobody could understand an Association's audit report unless it included the entire general ledger with all of its detail. And, that is a position that has been thoroughly debunked.

900.16 - We believe that with this type of financial report, less is more. The human mind can grasp a one-page financial presentation, but loses comprehension with each added page.

900.17 - One of the biggest complaints we hear from users of reserve study reports is the complete lack of consistency in reserve studies. This affects two areas: (1) the reports, which lack any consistency in content or formatting, and (2) the process itself. Two reserve practitioners will look at the same Association and come up with radically different results in their reserve study reports, assuming they could be compared in any way. What are the causes that create this situation? There are several.

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900.18 - One issue that has been discussed is that the majority of reserve practitioners have been attracted to the reserve study industry because of their ability to perform the physical analysis. Financial theories, calculations, and reporting have typically not been among the strengths of reserve practitioners. While we expect much disagreement on this point from reserve practitioners, one just needs to look at most reserve study reports to see the evidence.

900.19 - Another issue is that these individuals typically write their own reserve study “software,” oftentimes as Excel spreadsheets. Since many people won’t consider Excel workbooks as software, let’s simply refer to them as electronic assistants to help produce a reserve study report. Independent studies performed in the corporate world regularly show that more than 80% of Excel spreadsheets contain errors. In the reserve study world, a group of individuals who generally don’t have financial training are creating financial reports from a spreadsheet, so errors should not be considered uncommon.

900.20 - A third issue is that, until ICBI issued its reserve study standards in early 2015, there were no standards that required consistency of either calculations or reporting formats. Additionally, a presumption existed in CAI and APRA standards that long-lived components that couldn’t be observed should be omitted from the reserve study. ICBI took the opposite viewpoint on that issue.

900.21 – Considering all these factors, it becomes obvious why no two reserve study reports are the same: different definitions of components, no effective calculation standards, and no required consistency in financial reporting of reserve study results. In an attempt to provide consistency to the reserve study industry, the new ICBI standards addressed all of these issues.

Comparisons

901.1 - Since the reserve study is a financial report, let’s compare it (using the ICBI financial reporting framework) to the other common association financial statement - the audit report.

- Both have a cover page.
- Both have a table of contents.
- Both have a preparer’s report.
- Both have a statement of position (called a balance sheet in the audit).
- Both have a statement measuring activity over time. (In an audit, this is called the income statement or statement of revenues and expenses, which looks backwards in time. In the reserve study, it is the cash flow statement, which looks forward in time.)

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- Both have an exhibit that helps explain the prior exhibit. (In an audit, the statement of changes in cash flows is designed to supplement the statement of revenues and expenses. In the reserve study, the summary statement of expenditures is designed to supplement the cash flow statement.
- Both have narrative disclosures that provide information that cannot be contained within the financial exhibits.
- The reserve study has one exhibit for which there is no corollary in the audit report – the detail component list. This is attached to the reserve study as required supplemental information. Our understanding is that ICBI added it so that ICBI members' reports would also meet the CAI and APRA standards.
- Both have a presentation of regulatory information, which is likely the same information for most associations. The audit (or review or compilation) reports require presentation of supplemental information on reserves as required by FASB (Financial Accounting Standards Board). ICBI requires an exhibit of supplemental regulatory information that meets the FASB requirements.

900.2 - By requiring consistent calculations, certified software, and standard reporting formats, the ICBI standards provide all reserve practitioners with the information needed to overcome the calculation errors and inconsistent reporting issues so often complained about in the reserve study industry. Many reserve practitioners are resisting the new ICBI standards, however -partially because they represent change, partially because they present new concepts they've never considered, and partially because they consider them a possible burden. What these individuals fail to realize is that the ICBI standards were designed to help them overcome their weakest areas: financial calculations and financial reporting.

900.3 - It is important to note that reserve study reports issued under ICBI standards automatically comply with both CAI and APRA standards. However, reserve study reports issued under CAI and APRA standards DO NOT comply with ICBI standards.

900.4 - Let's look at a quick comparison of three Type 1 (Level 1) reports from various national reserve study companies as compared to the ICBI format.

900.5 - As you can see in Exhibit 9 - 1 below, the average reserve study reports prepared under CAI and APRA standards are much larger than the average ICBI report. The ICBI report, including supplemental exhibits, is still only 64 pages, about half the page count of reports produced by the two engineering companies (and one other reserve study company) below.

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Exhibit 9 - 1

Description	ICBI	Study #1	Study #2	Study #3
Total pages of basic report	18	112	98	124
Cover	1	2	2	2
Table of contents	1	3	0	1
Preparer report	3	N/A	N/A	N/A
Narrative	0	62	24	13
Disclosures	3	N/A	N/A	N/A
Photos	0	38	12	80
Financial exhibits	10	7	60	28
Supplemental Financial Exhibits	46 (includes photos)	N/A	N/A	N/A

900.6 - The details of the other reports are also interesting. Eight pages of narrative in Reserve Study Report #1 can only be described as marketing information about the reserve study company, which we believe to be inappropriate to include in a reserve study. The excessive narrative is more akin to a maintenance plan than a reserve study. Again, we see that crossover by an engineering company that confuses the separate services of reserve study versus maintenance manual. The financial exhibits of Reserve Study Reports #2 and #3 contain a mind-numbing amount of detail that is useless to anyone other than the Association's management and staff that need to work with this level of information. The narrative sections of all three reports contain multiple pages describing "how to read your reserve study." Since we have never seen an audit report containing a multi-page section on "how to read your audit report," we also consider this inappropriate to include in a reserve study report. As a point of clarification, we have marked Studies 1–3 above as having no disclosures. The fact is that they do contain some disclosures, but we have included these as "narrative" pages because they do not contain the ICBI-required disclosures about significant assumptions that are necessary to understand the report.

900.7 - The issue of reserves for homeowners associations was first addressed in accounting literature with the issuance by the American Institute of CPAs (AICPA) of the Accounting and Audit Guide for Common Interest Realty Associations (CIRA) in 1990. The AICPA ceased publication of this Guide in 2009. The Financial Accounting Standards Board (FASB) initiated

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the FASB Codification of Generally Accepted Accounting Principles (GAAP) in July 2009, and absorbed the entire AICPA CIRA Guide into Section 972 of the FASB Codification. Interested individuals may establish a free account to the FASB Codification by registering at the following site. www.fasb.org/codification

900.8 – Neither the AICPA audit guide nor FASB Codification provide any guidance with respect to calculation or presentation of reserves in the reserve study report, but do provide for certain disclosures to accompany compiled, reviewed, or audited financial statements of a homeowners association. The disclosures consist of a general description of reserves to be included in footnotes to the financial statements and inclusion of a summary table of reserve components attached as required supplementary information. See Exhibit 9 - 1 below.

Exhibit 9 - 2

Supplementary Information On Future Major Repairs and Replacements

Categories	Remaining Life	Future Replacement Cost	Next Year Funding Requirement	Balance of Components at Year End
Doors	14	\$ 690,380	\$ 29,759	\$ 146,840
Fences and Walls	1	2,586	98	734
Lights	8 – 9	103,058	6,681	24,625
Painting	1 – 6	1,285,969	97,765	341,44
Paving	1 – 19	190,471	11,793	38,754
Railing	19	162,040	5,821	30,836
Roofing	19 – 24	2,037,464	62,732	366,366
Signs	14	2,083	150	441
Totals		\$ 4,474,050	\$ 215,629	\$ 950,000

900.9 – The authors have observed that a number of reserve practitioners routinely include tax information in the narrative section of their reserve study reports. Some of this information is misleading, and some just plain wrong. The authors believe it is inappropriate for reserve practitioners to include such tax information in the reserve study report, unless they are also CPAs who possess the technical knowledge to address tax issues. Income tax issues related to

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reserves consists primarily of capital contributions under Internal Revenue Code (IRC) Section 118, and capital expenditures under IRC Section 263, including the issue of painting as a non-annual maintenance expense. A full discussion of accounting and income tax issues related to reserves is beyond the scope of this guide, but can be found in the Practitioners Publishing Company (PPC) “[Guide to Homeowners Associations and Other Common Interest Realty Associations](#).” The tax chapter of the PPC Guide is approximately 150 pages, which demonstrates that the topic of taxation is so complex that it cannot be addressed within the scope of this book.

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Appendix 9.1 – ICBI Reporting Principles

9.1.1 - Reporting Principles

- 1.** Long-term capital budgets (reserve studies) can be estimated that reflect the maintenance plan of the organization. By their very nature, such future expenditures tend to be large, non-annual items that are not easily includible in the annual budget process of any organization. There are two general types of long-term capital budgets:
 - A.** Capital Expenditure Budget - Such budgets generally consist of a projection of estimated future expenditures without identifying how funding for these expenditures will be achieved.
 - B.** Reserve Study – The reserve study differs from the capital expenditure budget in that it also provides for a long-term funding plan to finance (reserve for) those estimated future expenditures.
- 2.** The types of reports that may be issued are:
 - A.** Full reserve study based upon an on-site analysis.
 - B.** Update reserve study based upon an on-site analysis.
 - C.** Update of reserve study without an on-site analysis.
- 3.** Reserve professionals shall issue a “preparer’s report” that describes the reserve study engagement, summarizes procedures and conclusions, and refers to professional standards applicable to the engagement. The preparer’s report shall be issued by the reserve study company as opposed to the individual practitioner.

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Appendix 9.1 – ICBI Reporting Principles

9.1.2 – Interpretations of Reporting Principles

5-1.1 – Reserve Study Reports – Reserve studies differ from other long-term capital budgets in that they have a designated source of funding, and an obligation by the organization to provide for that funding. The primary focus of reserve study reports is the funding plan.

5-2.1 – Types of Reports – There are three types of reports that may be issued:

A. Full reserve study with an on-site analysis – Generally an initial report that includes identification, evaluation, and quantification and measurement of components based upon a site analysis. The full reserve study report may be based on an independent reserve study or a reserve management plan level of service.

B. Update reserve study with an on-site analysis – An update of a previously issued report that includes an on-site analysis and evaluation of components. This study generally does not require the identification or measurement of components, as the prior study may be relied upon. The update with on-site analysis reserve study report may be based on an independent reserve study or a reserve management plan level of service.

C. Update of reserve study without an on-site analysis – An update of a previously issued report that does not include an on-site analysis, but is rather an “accounting” update of remaining life, replacement cost, and a revision of the funding plan. The update without on-site analysis report may be based on an independent reserve study or a reserve management plan level of service.

5-3.1 – Preparer Report – Reserve professionals shall issue a “preparer’s report” that describes the reserve study engagement, summarizes procedures and conclusions, and refers to professional standards applicable to the engagement. The preparer’s report shall be issued by the reserve study company as opposed to the individual practitioner. The preparer’s report shall include the following:

- o) A title that identifies the type of report and level of service.
- p) Identification of the subject matter and the responsible party of the organization.
- q) A statement that the subject matter is the responsibility of the responsible party (governing board).
- r) A description of the nature and scope of the work performed.
- s) A reference to generally accepted reserve study standards governing the engagement.
- t) A statement that the engagement is less in scope than an independent engineering report and no such opinion is expressed.
- u) A disclosure if the on-site analysis or any other significant portion of the financial projection is prepared by another individual or company.

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Appendix 9.1 – ICBI Reporting Principles

9.1.2 – Interpretations of Reporting Principles

- i) A statement about whether the practitioner is aware of any material modifications that should be made to the subject matter in order for it to be based on the criteria indicated in the report.
- j) A statement about whether or not the software used in preparation of the financial exhibits meets ICBI software standards.
- k) A statement restricting the use of the report to specified parties.
- l) A statement identifying required supplemental information included in the reserve study report.
- m) A statement identifying regulatory information included in the reserve study report.
- n) A statement identifying any supplemental information that is not required but is included in the reserve study report.
- o) A statement that the reserve professional is not responsible for any events subsequent to the date of the report.

5-3.2 – Independent Reserve Study Preparer’s Report – A significant departure from past practice is that the independent reserve professional is required to include a “preparer’s report” as part of the independent reserve study. The preparer’s report summarizes the practitioner’s procedures and findings, and is in addition to the narrative disclosures and financial exhibits that comprise the reserve study report.

5-3.3 – Reserve Management Plan Preparer’s Report – The reserve professional issues a “preparer’s report” that summarizes the practitioner’s procedures and findings of the reserve management plan, and is in addition to the narrative disclosures and financial exhibits that comprise the reserve study report. This report differs significantly from the independent preparer’s report in that the practitioner is commenting on the organization’s reserve study report. The organization is considered to be the “owner” of the report.

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Appendix 9.2 – ICBI Reporting Standards

9.2.1 - ICBI Reporting Standards

1 - The Reserve Study Report shall include all report elements as considered necessary for a fair presentation of the relevant material in conformance with Generally Accepted Reserve Study Principles.

2 - Preparer's Report – The reserve professional's report shall identify the type of engagement, level of service provided, calculation methods used, statement regarding compliance with software standards, and the practitioner's conclusion of the material presented in conformance with Generally Accepted Reserve Study Principles.

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9.2 - ICBI Reporting Standards

9.2.2 - ICBI Interpretations of Reporting Standards

Reporting Standards – Section 300

The Reporting Standards address the format and content of the reserve study report, including the preparer's report. The purpose of this section is to provide consistency of reporting, while still allowing non-standard exhibits to be presented as supplemental information.

301 – Reserve Study Report Elements

301.01 - The report shall include the following elements:

- 12) Cover page
- 13) Table of Contents
- 14) Preparer's Report (see section 302 below)
- 15) Statement of Current Position
- 16) 30-year Cash Flow Summary
- 17) 30-year Summary Expenditure Table
- 18) Summary Component List
- 19) Disclosures
- 20) Required Supplemental Information (RSI)
- 21) Regulatory Disclosures
- 22) Supplemental Information (if any)

301.02 – The statement of current position must include the following data points:

- Name of organization
- Projection period, beginning and ending date
- Summary description of project, including type and location of organization, number of lots or units (if applicable), construction date (approximate), and summary description of physical property
- Name of Company preparing the report and date of report
- Summary table of components disclosing (normally by category) component name and estimated current cost
- Percent funded disclosures are optional, but if presented should include: the 100 percent funded amount (using the inflation-adjusted method of calculating percent funded, at the start date, and in total only), the estimated net resources available for reserve funding, the percent funded, amount over or under funded, and the amount over or underfunded on a per unit or per lot basis (if applicable).

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- Summary table of components excluded from the funding plan, or a reference to excluded components listed in “component analysis” disclosures
- Statement regarding special assessments

301.03 – The 30-year cash flow forecast must be prepared on the cash flow basis (component method funding calculations are not appropriate) and disclose by year the following data: beginning balance, assessments and other cash inflows, expenditures, and ending balance. An additional optional disclosure is the amount of assessment increase expressed as a percentage. Percent funded at either the beginning or end of each year may be disclosed, but is not required.

301.04 – The summary expenditure table must disclose, by major component or category, the expenditures each year of the forecast period. This summary may be limited to 10 years, or may display the entire 30-year period. This table may be displayed on an individual component basis if the number of components is not significantly different from the number of categories.

301.05 – The summary component list must disclose, by major component or category, the component or category name, range of estimated useful lives, range of estimated remaining lives, quantity or measurement, estimated current cost, and estimated 100 percent funded amount (optional), using the inflation-adjusted method of calculating percent funded, at the start date. This table may be displayed on an individual component basis if the number of components is not significantly different from the number of categories.

301.06 – Disclosures must include the following:

- On-site Analysis – Description of project, date of on-site analysis, identification of individuals performing on-site analysis, client staff interviewed (if any), procedures performed, discussion of common area and exclusive use common area components, disclosure of sampling used if not all components evaluated, guarantee that no destructive testing is performed
- Component Analysis – Assembly of components based on the on-site analysis, statement regarding completeness of component list, summary description of how repair or replacements costs were derived, statement

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9.2 - ICBI Reporting Standards

9.2.2 - ICBI Interpretations of Reporting Standards

regarding reliance on client data and that it is deemed reliable, list of excluded components with reason for exclusion, statement of other exclusions

- Financial Analysis – Description of cash flow method, disclosure of interest rate assumptions used if interest is included in the financial analysis or a statement that interest was not considered, disclosure of inflation rate assumptions used if included in the financial analysis or a statement that inflation was not considered, disclosure of income tax rate assumptions used if included in the financial analysis or a statement that income taxes were not considered, disclosure of annual assessment adjustment factor if applicable, statement that actual results may vary from estimated amounts, disclosure of how estimated beginning balance was calculated, and statement that financial information is not audited
- Significant Assumptions – The summary of significant assumptions should include any assumptions regarding components or financial factors that could affect the reserve study, such as:
 12. Minimum useful life
 13. Minimum replacement cost
 14. Addition of new components due to unexpected deterioration
 15. Preventive maintenance programs
 16. No unusual conditions
 17. Proper construction and installation
 18. Continued use of existing amenities
 19. Adequate property insurance coverage
 20. Regular reserve assessments to be made
 21. Interest rate assumptions
 22. Inflation assumptions

301.07 – Required Supplemental Information consists of a detail component list including component name, estimated useful life, estimated remaining life, estimated current cost, and, as an option only, estimated 100 percent funded amount, using the inflation-adjusted method of calculating percent funded, at the start date. Current or future cost methods of calculating percent funded should not be used in making this calculation for any purpose other than a required regulatory disclosure.

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9.2 - ICBI Reporting Standards

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301.08 – Regulatory information includes: (1) summary disclosures as required by the Financial Accounting Standards Board (FASB) if the organization is a community association located within the USA, and (2) any disclosures required by state or other statutes.

301.09 – Supplemental information may consist of any other information or exhibits that the preparer may wish to include, as long as such information is adequately disclosed and does not contradict information included elsewhere in the report.

302 – Preparer Report Elements

302.02 – The Preparer Report elements shall consist of:

- a) A title that identifies the type of report and level of service.
- b) Identification of the subject matter and the responsible party of the organization.
- c) A statement that the subject matter is the responsibility of the responsible party (reserve management plan report only).
- d) A description of the nature and scope of the work performed.
- e) A reference to the professional standards governing the engagement.
- f) A statement that the engagement is less in scope than an independent engineering report and no such opinion is expressed.
- g) A disclosure if the on-site analysis or any other significant portion of the financial projection is prepared by another individual or company.
- h) A statement about whether the practitioner is aware of any material modifications that should be made to the subject matter in order for it to be based on the criteria indicated in the report.
- i) A statement about whether or not the software used in preparation of the financial exhibits meets ICBI software standards.
- j) A statement restricting the use of the report to specified parties.
- k) A statement identifying required supplemental information.
- l) A statement identifying supplemental information that is not required.
- m) A statement that the reserve professional is not responsible for any events subsequent to the date of the report.
- n) A statement setting forth the credentials of the individual signing the report on behalf of the reserve study company.

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- o) Signing of report - report shall be signed in the name of the issuing company, and the name of the primary reserve professional shall also be disclosed.
- p) Dating of the report - the reserve professional's report shall use the date that all work is completed.

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Appendix 9.3 - Example - ICBI report

The following report is an example of a summary level report issued under ICBI standards. The financial exhibits included in this report are presented at a category level, and the intent is to provide summary information to readers, and not overwhelm them with detail. This is considered the complete reserve study report, as there is no obligation to issue supplemental exhibits at a component level.

As indicated above, the reserve study report must include regulatory information, if any applies. Since the FASB disclosures are required to accompany all association financial statements that are compiled, reviewed, or audited by a CPA, the FASB disclosure should be included in ALL ICBI compliant reserve study reports. In addition, if the state in which the association is located requires specific disclosures, that exhibit must also be included as part of the regulatory information.

RSI – Required Supplementary Information, consists of the component list prepared at a component level. The purpose of this is solely to allow ICBI reports to also meet the requirements of CAI and APRA reserve study standards, which require this exhibit.

For small associations with few components, the component level financial exhibits may be used in place of category level summary exhibits, if there is no significant difference. This eliminates the need for supplementary information at the component level.

Supplemental information generally consists of component level financial exhibits, and may either be attached to the summary level report, clearly identified as supplementary information, or may be issued as a separate report.

The decision to combine supplementary exhibits with the summary level reserve study report or issue the supplementary exhibits as a separate report is left to the discretion of the reserve practitioner. The benefit of issuing supplemental exhibits at the component level as a separate report is that leaves the category level exhibits as a stand-alone report that can be easily distributed to members or others.

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Appendix 9.3 - Example - ICBI supplemental exhibits

Supplemental information generally consists of component level financial exhibits, and may either be attached to the summary level report, clearly identified as supplementary information, or may be issued as a separate report.

For small associations with few components, the component level financial exhibits may be used in place of category level summary exhibits, if there is no significant difference. This eliminates the need for supplementary information at the component level.

The decision to combine supplementary exhibits with the summary level reserve study report or issue the supplementary exhibits as a separate report is left to the discretion of the reserve practitioner. The benefit of issuing supplemental exhibits at the component level as a separate report is that leaves the category level exhibits as a stand-alone report that can be easily distributed to members or others.

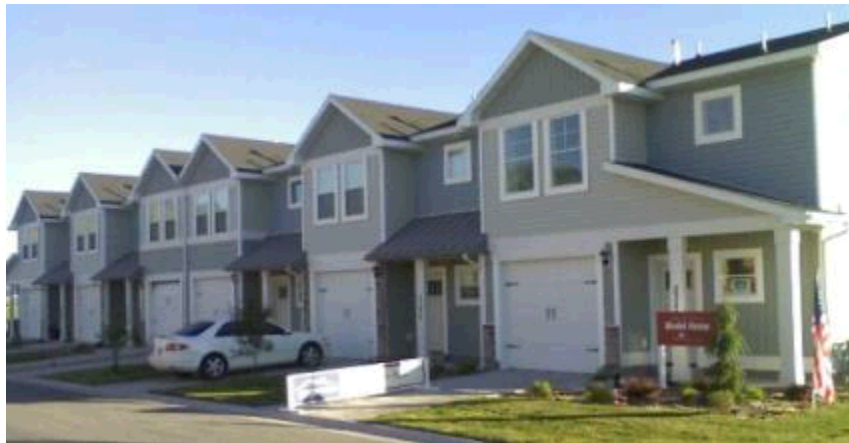
Sample Condominium Association

Reserve Management Plan

Type 1

Reserve Study With On-Site Analysis

For 30-Year Projection Period Beginning January 1, 2016





Sample Condominium Association

Reserve Management Plan

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**Preparer's Report on Reserve Study
Reserve Management Plan**

Type I Reserve Study With On-Site Analysis

For period 1/1/16 – 12/31/45

Board of Directors

Sample Condominium Association
Honolulu, HI

Description of Reserve Management Plan Engagement and Reserve Study Report

A reserve management plan engagement involves the reserve professional providing assistance to management of Sample Condominium Association by helping them identify key factors, develop assumptions, gather and assemble information, and develop a financial model so they may consider the results based upon their stated assumptions.

A Type I reserve study engagement is based on an on-site analysis. The on-site analysis of Sample Condominium Association upon which this reserve management plan is based was performed by Joe Examiner, PRA of Facilities Advisors, Inc. on August 8, 2015.

The attached basic financial exhibits and disclosures comprise a Type I Reserve Study report of Sample Condominium Association. The basic financial exhibits comprising this reserve study report are the statement of position and summary component list as of January 1, 2016, statements of projected cash flows and expenditures for the 30-year period beginning January 1, 2016, and related disclosures that provide important information regarding the basic financial exhibits.

Management's Responsibility for Reserve Study

The Governing Body of Sample Condominium Association is responsible for the preparation and fair presentation of this reserve study report in accordance with Generally Accepted Reserve Study Principles.

Reserve Professional's Responsibility

Our responsibility is to perform our reserve management plan engagement and compile the reserve study report in accordance with Generally Accepted Reserve Study Standards.

Report on Reserve Study

Our reserve management plan engagement was performed in accordance with Generally Accepted Reserve Study Standards. A reserve study involves performing procedures to identify, quantify and evaluate condition of components based upon a visual observation for the purpose of making a financial projection. The procedures selected are based on the reserve professional's judgment. We believe that the procedures we have performed are

sufficient and appropriate to support the reserve study report as presented. We are not responsible for any events subsequent to the date of this report.

We have compiled the accompanying reserve study report of Sample Condominium Association, comprised of the financial exhibits referred to above in accordance with Generally Accepted Reserve Study Principles.

This reserve study report was prepared using software meeting the reserve study calculation and software standards of the International Capital Budgeting Institute.

We are not aware of any material modifications that should be made to the financial exhibits referred to above, based upon the stated significant assumptions and exclusions, for them to be presented in conformity with Generally Accepted Reserve Study Principles.

This reserve study report is restricted to the management and members of the Sample Condominium Association, and should not be relied upon by others not involved in the establishment of the significant assumptions and exclusions upon which this report is based. Readers of the reserve study report should consider the significant assumptions, excluded components, and general exclusions in forming their own conclusions regarding the reserve study report.

Required Supplementary Information

Generally Accepted Reserve Study Standards require that the component list compiled at the major or minor component level be presented to supplement the basic financial exhibits. This component list is the responsibility of the Sample Condominium Association's management and was used to prepare the basic financial exhibits. The information contained in this list has been subjected to the procedures applied in the compilation of the reserve study report, and we are not aware of any material modifications that should be made thereto.

Regulatory Information

In the case of common interest realty associations located in the U.S.A., Generally Accepted Reserve Study Standards require that regulatory disclosures be presented to supplement the basic financial exhibits. Regulatory Disclosures consist of supplemental information required by the Financial Accounting Standards Board and any disclosures required by state or local jurisdictions. Such information is the responsibility of the Sample Condominium Association's management and was derived from the component list used to prepare the reserve study report. The information has been subjected to the procedures applied in the compilation of the basic reserve study report, and we are not aware of any material modifications that should be made thereto.

Facilities Advisors, Inc.

Joe Examiner

October 19, 2015



Statement of Position

Projection period: January 1, 2016 to 2045
Type of Project: Condominium
Number of Units: 200
Location: Honolulu, HI
Projected Construction date: October 31, 2014

Description of Project: Sample Condominium Association is an 200 - unit condominium development located in Honolulu, HI. The project consists of 4 buildings of 50 units each. Buildings are two story wood frame constructions with stucco exterior cladding. The project was developed in October 31, 2014.

On-Site analysis performed by: Joe Examiner
Component analysis performed by: Joe Examiner
Report prepared by: Joe Examiner

Categories	Estimated Useful Lives Years	Estimated Remaining Useful Lives Years	Estimated Future Replacement Cost
Doors	25	13	\$ 675,188
Fences & Walls	3	0	2,528
Lights	12-20	7- 8	100,791
Paint	7-15	0- 5	1,257,670
Paving	7-30	0-18	186,610
Railing	30	18	158,476
Roofing	35	18-23	1,992,630
Signs	15	13	2,037
			<u>\$ 4,375,930</u>

No special assessments are considered necessary during the 30-year projection period.

Components Excluded From This Report

Major Component	Reason Excluded
Building Structures	Lifetime Component
Utilities - Underground and in Structure	Long-lived Component – Never previously included in study, and Excluded per Board decision
Street Base	Lifetime Component
Hardscape – sidewalks and curbs	Lifetime Component
Irrigation Lines and Sprinklers	Included in Operating Budget
Major Tree Trimming	Included in Operating Budget
Landscape / Plant Replacement	Included in Operating Budget

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Cash Flow - Annual

Period	Beginning Balance	Contribution	Interest Earned	Expenditures	Ending Balance
01/16 - 12/16	\$ 950,000.00	\$ 204,000.00	\$ 9,919.59	\$ 38,603.18	\$ 1,125,316.41
01/17 - 12/17	1,125,316.41	208,284.00	11,690.95	8,788.48	1,336,502.88
01/18 - 12/18	1,336,502.88	212,658.00	13,765.15	0.00	1,562,926.03
01/19 - 12/19	1,562,926.03	217,123.80	10,827.20	1,173,684.72	617,192.31
01/20 - 12/20	617,192.31	221,683.44	6,944.85	0.00	845,820.60
01/21 - 12/21	845,820.60	226,338.72	9,001.10	74,417.08	1,006,743.34
01/22 - 12/22	1,006,743.34	231,091.80	10,693.95	2,889.03	1,245,640.06
01/23 - 12/23	1,245,640.06	235,944.72	12,948.27	30,715.05	1,463,818.00
01/24 - 12/24	1,463,818.00	240,899.64	14,808.77	70,075.48	1,649,450.93
01/25 - 12/25	1,649,450.93	245,958.48	16,896.30	3,088.46	1,909,217.25
	\$ 950,000.00	\$ 2,243,982.60	\$ 117,496.13	\$ 1,402,261.48	\$ 1,909,217.25

Period	Beginning Balance	Contribution	Interest Earned	Expenditures	Ending Balance
01/26 - 12/26	1,909,217.25	251,123.64	19,412.91	0.00	2,179,753.80
01/27 - 12/27	2,179,753.80	256,397.28	21,995.40	5,489.30	2,452,657.18
01/28 - 12/28	2,452,657.18	261,781.56	24,418.88	112,173.39	2,626,684.23
01/29 - 12/29	2,626,684.23	267,279.00	23,336.27	688,703.18	2,228,596.32
01/30 - 12/30	2,228,596.32	272,891.88	22,563.95	0.00	2,524,052.15
01/31 - 12/31	2,524,052.15	278,622.60	25,394.94	3,529.57	2,824,540.12
01/32 - 12/32	2,824,540.12	284,473.68	28,305.29	0.00	3,137,319.09
01/33 - 12/33	3,137,319.09	290,447.64	31,290.76	6,273.31	3,452,784.18
01/34 - 12/34	3,452,784.18	296,547.00	24,187.57	2,415,492.10	1,358,026.65
01/35 - 12/35	1,358,026.65	302,774.52	12,019.67	623,030.02	1,049,790.82
	\$ 1,909,217.25	\$ 2,762,338.80	\$ 232,925.64	\$ 3,854,690.87	\$ 1,049,790.82

Period	Beginning Balance	Contribution	Interest Earned	Expenditures	Ending Balance
01/36 - 12/36	1,049,790.82	309,132.72	11,489.01	0.00	1,370,412.55
01/37 - 12/37	1,370,412.55	315,624.48	14,561.55	4,033.68	1,696,564.90
01/38 - 12/38	1,696,564.90	322,252.68	15,447.76	521,535.01	1,512,730.33
01/39 - 12/39	1,512,730.33	329,019.96	13,706.02	526,100.24	1,329,356.07
01/40 - 12/40	1,329,356.07	335,929.32	14,208.63	32,930.89	1,646,563.13
01/41 - 12/41	1,646,563.13	342,983.88	17,278.95	14,991.10	1,991,834.86
01/42 - 12/42	1,991,834.86	350,186.52	20,437.91	118,741.48	2,243,717.81
01/43 - 12/43	2,243,717.81	357,540.48	23,091.33	4,609.79	2,619,739.83
01/44 - 12/44	2,619,739.83	365,048.76	26,252.37	112,197.32	2,898,843.64
01/45 - 12/45	2,898,843.64	372,714.84	29,434.56	0.00	3,300,993.04
	\$ 1,049,790.82	\$ 3,400,433.64	\$ 185,908.09	\$ 1,335,139.51	\$ 3,300,993.04

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Expenditures - Matrix

Description	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Asphalt Overlay										
Asphalt Repair	15,000									
Asphalt Seal Coat						17,592				
Block Wall - Repairs	2,527			2,702			2,889			3,088
Door - Unit Entry Metal	4,297	8,788		4,594						
Fence, Block Wall - Paint	16,777									
Garage Door - Paint						56,824				
Garage Door - Replace										
Gutters & Downspouts - Replace										
Light Fixtures - Replace									70,075	
Lights, Bollard - Replace								30,715		
Railing - Paint				9,728						
Railing - Replace										
Roof - Asphalt Shingle										
Sign - Monument Entry										
Stucco - Paint				972,890						
Trim Paint				183,768						
	38,603	8,788	0	1,173,684	0	74,417	2,889	30,715	70,075	3,088

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Expenditures - Matrix

Description	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Asphalt Overlay									154,016	
Asphalt Repair										
Asphalt Seal Coat			20,557							24,022
Block Wall - Repairs			3,301			3,529			3,773	
Door - Unit Entry Metal		5,489		11,478				6,273		
Fence, Block Wall - Paint			21,912							
Garage Door - Paint			66,401							77,592
Garage Door - Replace				675,188						
Gutters & Downspouts - Replace									37,732	38,581
Light Fixtures - Replace										
Lights, Bollard - Replace										40,115
Railing - Paint									13,583	
Railing - Replace									158,474	
Roof - Asphalt Shingle									432,976	442,718
Sign - Monument Entry				2,036						
Stucco - Paint									1,358,356	
Trim Paint									256,578	
	0	5,489	112,173	688,703	0	3,529	0	6,273	2,415,492	623,030

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Expenditures - Matrix

Description	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Asphalt Overlay										
Asphalt Repair										
Asphalt Seal Coat							28,071			
Block Wall - Repairs		4,033			4,312			4,609		
Door - Unit Entry Metal			7,011			14,991				
Fence, Block Wall - Paint					28,618					
Garage Door - Paint							90,670			
Garage Door - Replace										
Gutters & Downspouts - Replace			41,244	42,172						
Light Fixtures - Replace									109,353	
Lights, Bollard - Replace										
Railing - Paint										
Railing - Replace										
Roof - Asphalt Shingle			473,279	483,927						
Sign - Monument Entry									2,843	
Stucco - Paint										
Trim Paint										
	0	4,033	521,535	526,100	32,930	14,991	118,741	4,609	112,197	0

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Component List - Category Summary

Category	Service Date	Replace Life	Current Cost	Future Cost
Doors	07/04-07/04	13:06 -13:06	\$ 500,000.00	\$ 675,188.12
Fences & Walls	07/13-07/13	0:06 - 0:06	2,500.00	2,527.97
Lights	07/04-10/11	7:09 - 8:06	83,850.00	100,790.53
Paint	07/04-10/14	0:06 - 5:09	1,162,500.00	1,257,670.22
Paving	08/86-10/14	0:07 -18:09	131,960.00	186,609.44
Railing	07/04-07/04	18:06 -18:06	105,000.00	158,474.96
Roofing	07/99-07/04	18:06 -23:06	1,247,500.00	1,992,631.39
Signs	10/14-10/14	13:09 -13:09	1,500.00	2,036.86
			<u>\$ 3,234,810.00</u>	<u>\$ 4,375,929.49</u>

Disclosures

Site Analysis

Sample Condominium Association is a planned development association located in Honolulu, HI. The Association consists of 200 units located at the corner of Main and East streets and encompassing approximately 11 acres. The units were constructed as a single phase in October 31, 2014. The project consists of four two story buildings, each containing 50 units. Construction is wood frame with stucco exterior cladding. Roofs are three tab asphalt shingle.

The site analysis was performed on August 18, 2015 by Joe Examiner, PRA of Facilities Advisors, Inc. Manager Sam Smart was interviewed during the site analysis regarding component existence, maintenance activities, dates last repaired/replaced, and actual or bid costs, if known. Site analysis procedures included:

- Review of Google Earth satellite images
- Tour of Association common areas
- Identification and quantification / measurement of common area components
- Component condition assessment

The site analysis was performed as a limited scope visual observation. No destructive or invasive testing was performed. The condition of components may be assessed differently if destructive / invasive testing was performed, but such testing is beyond the scope of a reserve study.

Component Analysis

Components considered for inclusion in the reserve study report are all those components that are the maintenance responsibility of the Association that are anticipated to require future major repair or replacement under the assumption that such components are subject to normal maintenance activities and normal wear and tear. Components with a useful life of less than two years or a cost of \$1,000 have generally been excluded from this analysis, as such items are considered to be part of the Association's operating budget.

The component list was compiled based upon the previous reserve study, the tour of association common areas, inquiry of Association management and maintenance staff, and selected vendors providing maintenance services to the Association. The component list is believed to be complete, except for the exclusions noted below, which are considered normal exclusions.

Estimated future major repair and replacement costs are generally based on current replacement costs projected to estimated repair or replacement date, applying an inflation factor of 2.25% for the entire 30-year financial projection period.

Current estimated replacement costs are derived from a variety of sources including; actual prior costs, current bids, vendor or contractor estimates, management's estimates, Facilities Advisors, Inc. cost database, or cost estimator manuals. This data is considered reliable and has been relied upon in the determination of current cost. Current cost includes material or product cost, labor, overhead, delivery, and sales tax.

General Exclusions from the analysis are:

Excluded Conditions	Reason for Exclusion
Building code or zoning violations or upgrades	Outside scope of study
Structural stability or engineering analysis	Outside scope of study
Environmental conditions *	Outside scope of study
Geological stability or soil conditions	Outside scope of study
Soil contamination	Outside scope of study
Hydrological conditions	Outside scope of study
Mold or fungus	Outside scope of study
Termites or other pest control	Outside scope of study
Risks of wildfire, flood or seismic activity	Outside scope of study
Water quality or testing	Outside scope of study
Illegal or controlled substances	Outside scope of study
Building values or appraisals	Outside scope of study
Adequacy of efficiency of any system or component	Outside scope of study
Information not provided by the association necessary to identify all components	Outside scope of study

* Asbestos, radon, formaldehyde, lead, water or air quality, electromagnetic radiation or other environmental hazards.

Financial Analysis

The financial projection was prepared using the pooled cash flow method. Under this method, aggregate expenditures are projected to future estimated repair or replacement dates considering inflation at 2.25%. Actual expenditures may vary from estimated expenditures, and the differences may be significant.

Reserve fund revenues consist of member assessments and interest earned (and other income). Interest income has been estimated at 0.95%. The funding plan does not contain an income tax expense related to interest earned, as income taxes are paid from the operating fund. The projected annual assessment has been subjected to an annual increase factor for the projection period. This annual assessment adjustment factor is necessary to counteract the effects of inflation on projected expenditures.

Percent funded at January 1, 2016 of 55.74 was calculated using the inflation adjusted method.

The beginning balance of reserve funds was estimated at \$ 950,000, based on information provided by management. The beginning balance of reserve funds was calculated as follows:

Cash balance at July 31, 2015	\$ 50,000
Investment balance at July 31, 2015	\$ 850,000
Estimated Reserve Assessments from interim date to year end	\$ 50,000
Total Funds available for reserves beginning balance	<u>\$ 950,000</u>

Significant Assumptions

The following significant assumptions were used in the preparation of this reserve study report. If the actual replacement costs or remaining lives vary from the assumptions used in this analysis, the impact could be significant on future assessments. Accordingly, an annual review of the analysis is necessary to see if the Board, within its authority, should increase the regular assessments, pass special assessments or reschedule future replacement dates.

- Generally, only long-term major repair and replacement activities for components with a life of 2 years or longer and a cost of \$1,000 or more have been considered in this analysis. A group of items with individual cost of less than \$1,000 are included if the aggregate cost exceeds \$1,000.
- The Board of Directors will implement and/or continue preventive maintenance and repair programs to prevent abnormal deterioration of the common areas.
- The analysis assumes that no unusual conditions will occur, such as weather, vandalism, unusual use, or unforeseen obsolescence.
- Measurements and quantities were obtained by count, measurement, or estimation from plans provided by the Board of Directors unless otherwise noted, and are assumed to be a close approximation to actual.
- Proper construction and installation of all improvements is assumed, unless otherwise noted.
- This analysis assumes that the Association membership wishes to continue the use and maintenance of all amenities currently in place.
- The Association carries comprehensive property insurance to cover most insurable property risks.
- Current financial information was supplied by the Board of Directors and is assumed to be reasonably accurate as of the date of this analysis. Funded cash balances were not audited nor confirmed directly with financial institutions as a part of this analysis.
- The Association will collect and set aside reserve assessments on an annual basis as set forth in the funding plan projection, in order that sufficient funds will be available when expenditures are scheduled or necessary.
- The Board of Directors does not anticipate any special assessments other than those that may be scheduled as part of the attached 30-year funding projection.
- Interest rate of 0.95% is used in the funding plan.
- Inflation rate of 2.25% is used in the funding plan.

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Supplementary Information on Future Major Repairs and Replacements

Categories	Estimated Remaining Useful Lives Life YY:MM	Estimated Future Replacement Cost	2016 Funding Requirement	Components of Fund Balance at 12/31/2015
Doors	13:06	\$ 675,188	\$ 29,521	\$ 146,840
Fences & Walls	0:06	2,528	921	734
Lights	7:09 - 8:06	100,791	6,628	24,625
Paint	0:06 - 5:09	1,257,670	96,983	341,404
Paving	0:07 - 18:09	186,610	11,712	38,754
Railing	18:06	158,476	5,774	30,836
Roofing	18:06 - 23:06	1,992,630	62,231	366,366
Signs	13:09	2,037	148	441
		<u>\$ 4,375,930</u>	<u>\$ 213,918</u>	<u>\$ 950,000</u>

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Detail

Description	Service Date	Current Cost	Est Life	Adj Life	Rem Life	Future Cost	Basis Cost	Measurement Basis
Doors								
Garage Door - Replace	07/01/2004	\$ 125,000.00	25:00	25:00	13:06	\$ 168,797.03	\$ 2,500.00	Each
Garage Door - Replace	07/01/2004	125,000.00	25:00	25:00	13:06	168,797.03	2,500.00	Each
Garage Door - Replace	07/01/2004	125,000.00	25:00	25:00	13:06	168,797.03	2,500.00	Each
Garage Door - Replace	07/01/2004	125,000.00	25:00	25:00	13:06	168,797.03	2,500.00	Each
		\$ 500,000.00				\$ 675,188.12		
Fences & Walls								
Block Wall - Repairs	07/31/2013	2,500.00	3:00	3:00	0:06	2,527.97	2,500.00	Allow
		\$ 2,500.00				\$ 2,527.97		
Lights								
Light Fixtures - Replace	07/01/2004	14,500.00	20:00	20:00	8:06	17,518.87	145.00	Each
Light Fixtures - Replace	07/01/2004	14,500.00	20:00	20:00	8:06	17,518.87	145.00	Each
Light Fixtures - Replace	07/01/2004	14,500.00	20:00	20:00	8:06	17,518.87	145.00	Each
Light Fixtures - Replace	07/01/2004	14,500.00	20:00	20:00	8:06	17,518.87	145.00	Each
Lights, Bollard - Replace	10/31/2011	25,850.00	12:00	12:00	7:09	30,715.05	235.00	Each
		\$ 83,850.00				\$ 100,790.53		
Paint								
Door - Unit Entry Metal	07/01/2005	4,250.00	10:00	12:00	1:06	4,394.24	85.00	Each
Door - Unit Entry Metal	07/01/2005	4,250.00	10:00	11:00	0:06	4,297.55	85.00	Each
Door - Unit Entry Metal	07/01/2005	4,250.00	10:00	12:00	1:06	4,394.24	85.00	Each
Door - Unit Entry Metal	07/01/2005	4,250.00	10:00	14:00	3:06	4,594.21	85.00	Each
Fence, Block Wall - Paint	10/31/2004	16,500.00	12:00	12:00	0:09	16,777.66	16,500.00	Job
Garage Door - Paint	10/31/2014	12,500.00	7:00	7:00	5:09	14,206.07	250.00	Each
Garage Door - Paint	10/31/2014	12,500.00	7:00	7:00	5:09	14,206.07	250.00	Each
Garage Door - Paint	10/31/2014	12,500.00	7:00	7:00	5:09	14,206.07	250.00	Each
Garage Door - Paint	10/31/2014	12,500.00	7:00	7:00	5:09	14,206.07	250.00	Each
Railing - Paint	07/01/2004	2,250.00	15:00	15:00	3:06	2,432.23	3.00	LF
Railing - Paint	07/01/2004	2,250.00	15:00	15:00	3:06	2,432.23	3.00	LF

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation: 2.25% Investment: 0.95% Contribution Factor: 2.50% Calc: Future

Component List - Detail

Description	Service Date	Current Cost	Est Life	Adj Life	Rem Life	Future Cost	Basis Cost	Measurement Basis
Railing - Paint	07/01/2004	\$ 2,250.00	15:00	15:00	3:06	\$ 2,432.23	\$ 3.00	LF
Railing - Paint	07/01/2004	2,250.00	15:00	15:00	3:06	2,432.23	3.00	LF
Stucco - Paint	07/01/2004	225,000.00	15:00	15:00	3:06	243,222.71	225,000.00	Job
Stucco - Paint	07/01/2004	225,000.00	15:00	15:00	3:06	243,222.71	225,000.00	Job
Stucco - Paint	07/01/2004	225,000.00	15:00	15:00	3:06	243,222.71	225,000.00	Job
Stucco - Paint	07/01/2004	225,000.00	15:00	15:00	3:06	243,222.71	225,000.00	Job
Trim Paint	07/01/2004	42,500.00	15:00	15:00	3:06	45,942.07	42,500.00	Job
Trim Paint	07/01/2004	42,500.00	15:00	15:00	3:06	45,942.07	42,500.00	Job
Trim Paint	07/01/2004	42,500.00	15:00	15:00	3:06	45,942.07	42,500.00	Job
Trim Paint	07/01/2004	42,500.00	15:00	15:00	3:06	45,942.07	42,500.00	Job
		\$ 1,162,500.00				\$ 1,257,670.22		
Paving								
Asphalt Overlay	10/31/2014	101,480.00	20:00	20:00	18:09	154,016.64	1.18	SF
Asphalt Repair	08/01/1986	15,000.00	30:00	30:00	0:07	15,000.00	15,000.00	Job
Asphalt Seal Coat	10/31/2014	15,480.00	7:00	7:00	5:09	17,592.80	0.18	SF
		\$ 131,960.00				\$ 186,609.44		
Railing								
Railing - Replace	07/01/2004	26,250.00	30:00	30:00	18:06	39,618.74	35.00	LF
Railing - Replace	07/01/2004	26,250.00	30:00	30:00	18:06	39,618.74	35.00	LF
Railing - Replace	07/01/2004	26,250.00	30:00	30:00	18:06	39,618.74	35.00	LF
Railing - Replace	07/01/2004	26,250.00	30:00	30:00	18:06	39,618.74	35.00	LF
		\$ 105,000.00				\$ 158,474.96		
Roofing								
Gutters & Downspouts - Replace	07/01/2004	25,000.00	35:00	35:00	23:06	42,172.36	25,000.00	Set
Gutters & Downspouts - Replace	07/01/1999	25,000.00	35:00	35:00	18:06	37,732.13	25,000.00	Set
Gutters & Downspouts - Replace	07/01/2000	25,000.00	35:00	35:00	19:06	38,581.11	25,000.00	Set
Gutters & Downspouts - Replace	07/01/2003	25,000.00	35:00	35:00	22:06	41,244.37	25,000.00	Set
Roof - Asphalt Shingle	07/01/2004	286,875.00	35:00	35:00	23:06	483,927.88	6.75	SF

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Detail

Description	Service Date	Current Cost	Est Life	Adj Life	Rem Life	Future Cost	Basis Cost	Measurement Basis
Roof - Asphalt Shingle	07/01/1999	\$ 286,875.00	35:00	35:00	18:06	\$ 432,976.24	\$ 6.75	SF
Roof - Asphalt Shingle	07/01/2000	286,875.00	35:00	35:00	19:06	442,718.20	6.75	SF
Roof - Asphalt Shingle	07/01/2003	286,875.00	35:00	35:00	22:06	473,279.10	6.75	SF
		\$ 1,247,500.00				\$ 1,992,631.39		
Signs								
Sign - Monument Entry	10/31/2014	1,500.00	15:00	15:00	13:09	2,036.86	1,500.00	Job
		\$ 1,500.00				\$ 2,036.86		
		\$ 3,234,810.00				\$ 4,375,929.49		

Sample Condominium Association

Supplementary Schedules Reserve Management Plan

Reserve Study with On-Site Analysis

For 30-Year Projection Period Beginning January 1, 2016

Attached exhibits consist of component level detail reports. These reports are intended to supplement, but not be a part of the reserve study as of this same date.



Sample Condominium Association
Supplementary Schedules
Reserve Management Plan

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Offices Nationwide

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Preparer's Report on Supplemental Information - Reserve Management Plan
Type I Reserve Study With On-Site Analysis

For period 1/1/16 – 12/31/45

Board of Directors

Sample Condominium Association
Honolulu, HI

Report on Supplementary Information

The Supplementary Schedules as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the financial projection. Such information is the responsibility of the Sample Condominium Association's management and was derived from the underlying component list used to prepare the basic reserve study report. The information has been subjected to the inquiry and other procedures applied in the compilation of the basic reserve study report, and we are not aware of any material modifications that should be made thereto.

Facilities Advisors, Inc.
Joe Examiner
October 19, 2015

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Percent Funded - Annual - Ending Balance

Period	Beginning Balance	Contribution	Percent Change	Interest	Expenditure Future Cost	Ending Balance	Percent Funded	100 % Funded Time Value
1/16 - 12/16	\$ 950,000	\$ 204,000	0.00 %	\$ 9,919	\$ 38,603	\$ 1,125,316	60.44 %	\$ 1,861,570
1/17 - 12/17	1,125,316	208,284	2.10	11,690	8,788	1,336,502	64.99	2,056,376
1/18 - 12/18	1,336,502	212,658	2.10	13,765	0	1,562,926	68.90	2,268,093
1/19 - 12/19	1,562,926	217,123	2.10	10,827	1,173,684	617,192	47.42	1,301,481
1/20 - 12/20	617,192	221,683	2.10	6,944	0	845,820	56.24	1,503,742
1/21 - 12/21	845,820	226,338	2.10	9,001	74,417	1,006,743	61.40	1,639,614
1/22 - 12/22	1,006,743	231,091	2.10	10,693	2,889	1,245,640	67.17	1,854,433
1/23 - 12/23	1,245,640	235,944	2.10	12,948	30,715	1,463,818	71.39	2,050,190
1/24 - 12/24	1,463,818	240,899	2.10	14,808	70,075	1,649,450	74.48	2,214,539
1/25 - 12/25	1,649,450	245,958	2.10	16,896	3,088	1,909,217	77.78	2,454,576
1/26 - 12/26	1,909,217	251,123	2.10	19,412	0	2,179,753	80.50	2,707,488
1/27 - 12/27	2,179,753	256,397	2.10	21,995	5,489	2,452,657	82.72	2,964,986
1/28 - 12/28	2,452,657	261,781	2.10	24,418	112,173	2,626,684	84.03	3,125,560
1/29 - 12/29	2,626,684	267,279	2.10	23,336	688,703	2,228,596	82.21	2,710,818
1/30 - 12/30	2,228,596	272,891	2.10	22,563	0	2,524,052	84.47	2,987,896
1/31 - 12/31	2,524,052	278,622	2.10	25,394	3,529	2,824,540	86.31	3,272,501
1/32 - 12/32	2,824,540	284,473	2.10	28,305	0	3,137,319	87.82	3,572,049
1/33 - 12/33	3,137,319	290,447	2.10	31,290	6,273	3,452,784	89.05	3,877,078
1/34 - 12/34	3,452,784	296,547	2.10	24,187	2,415,492	1,358,026	77.21	1,758,859
1/35 - 12/35	1,358,026	302,774	2.10	12,019	623,030	1,049,790	74.41	1,410,740
1/36 - 12/36	1,049,790	309,132	2.10	11,489	0	1,370,412	81.11	1,689,429
1/37 - 12/37	1,370,412	315,624	2.10	14,561	4,033	1,696,564	85.86	1,975,865
1/38 - 12/38	1,696,564	322,252	2.10	15,447	521,535	1,512,730	86.38	1,751,137
1/39 - 12/39	1,512,730	329,019	2.10	13,706	526,100	1,329,356	87.31	1,522,545
1/40 - 12/40	1,329,356	335,929	2.10	14,208	32,930	1,646,563	91.80	1,793,596

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Percent Funded - Annual - Ending Balance

Period	Beginning Balance	Contribution	Percent Change	Interest	Expenditure Future Cost	Ending Balance	Percent Funded	100 % Funded Time Value
1/41 - 12/41	\$ 1,646,563	\$ 342,983	2.10 %	\$ 17,278	\$ 14,991	\$ 1,991,834	95.08 %	\$ 2,094,800
1/42 - 12/42	1,991,834	350,186	2.10	20,437	118,741	2,243,717	97.35	2,304,746
1/43 - 12/43	2,243,717	357,540	2.10	23,091	4,609	2,619,739	99.21	2,640,508
1/44 - 12/44	2,619,739	365,048	2.10	26,252	112,197	2,898,843	100.60	2,881,543
1/45 - 12/45	2,898,843	372,714	2.10	29,434	0	3,300,993	80.87	4,040,101

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Year

Date	Description	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Year --2016							
07/31/2016	Block Wall - Repairs	910-000-0018	07/31/2013	3:00	\$ 2,527.97	\$ 0.00	\$ 2,527.97
07/01/2016	Door - Unit Entry Metal	920-002-0003	07/01/2005	11:00	4,297.55	0.00	4,297.55
08/01/2016	Asphalt Repair	910-000-0011	08/01/1986	30:00	15,000.00	0.00	15,000.00
10/31/2016	Fence, Block Wall - Paint	910-000-0016	10/31/2004	12:00	16,777.66	0.00	16,777.66
					\$ 38,603.18	\$ 0.00	\$ 38,603.18
Year --2017							
07/01/2017	Door - Unit Entry Metal	920-001-0003	07/01/2005	12:00	4,394.24	0.00	4,394.24
07/01/2017	Door - Unit Entry Metal	920-003-0003	07/01/2005	12:00	4,394.24	0.00	4,394.24
					\$ 8,788.48	\$ 0.00	\$ 8,788.48
Year --2019							
07/31/2019	Block Wall - Repairs	910-000-0018	07/31/2016	3:00	2,702.47	0.00	2,702.47
07/01/2019	Door - Unit Entry Metal	920-004-0003	07/01/2005	14:00	4,594.21	0.00	4,594.21
07/01/2019	Railing - Paint	920-001-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	Railing - Paint	920-002-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	Railing - Paint	920-003-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	Railing - Paint	920-004-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	Stucco - Paint	920-001-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	Stucco - Paint	920-002-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	Stucco - Paint	920-003-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	Stucco - Paint	920-004-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	Trim Paint	920-001-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	Trim Paint	920-002-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	Trim Paint	920-003-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	Trim Paint	920-004-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
					\$ 1,173,684.72	\$ 0.00	\$ 1,173,684.72
Year --2021							
10/31/2021	Asphalt Seal Coat	910-000-0012	10/31/2014	7:00	17,592.80	0.00	17,592.80
10/31/2021	Garage Door - Paint	920-001-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	Garage Door - Paint	920-002-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	Garage Door - Paint	920-003-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	Garage Door - Paint	920-004-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
					\$ 74,417.08	\$ 0.00	\$ 74,417.08
Year --2022							
07/31/2022	Block Wall - Repairs	910-000-0018	07/31/2019	3:00	2,889.03	0.00	2,889.03
					\$ 2,889.03	\$ 0.00	\$ 2,889.03
Year --2023							
10/31/2023	Lights, Bollard - Replace	910-000-0015	10/31/2011	12:00	30,715.05	0.00	30,715.05
					\$ 30,715.05	\$ 0.00	\$ 30,715.05
Year --2024							

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Year

Date	Description	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
07/01/2024	Light Fixtures - Replace	920-001-0002	07/01/2004	20:00	\$ 17,518.87	\$ 0.00	\$ 17,518.87
07/01/2024	Light Fixtures - Replace	920-002-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2024	Light Fixtures - Replace	920-003-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2024	Light Fixtures - Replace	920-004-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
					\$ 70,075.48	\$ 0.00	\$ 70,075.48
Year --2025							
07/31/2025	Block Wall - Repairs	910-000-0018	07/31/2022	3:00	3,088.46	0.00	3,088.46
					\$ 3,088.46	\$ 0.00	\$ 3,088.46
Year --2027							
07/01/2027	Door - Unit Entry Metal	920-002-0003	07/01/2016	11:00	5,489.30	0.00	5,489.30
					\$ 5,489.30	\$ 0.00	\$ 5,489.30
Year --2028							
07/31/2028	Block Wall - Repairs	910-000-0018	07/31/2025	3:00	3,301.65	0.00	3,301.65
10/31/2028	Asphalt Seal Coat	910-000-0012	10/31/2021	7:00	20,557.88	0.00	20,557.88
10/31/2028	Fence, Block Wall - Paint	910-000-0016	10/31/2016	12:00	21,912.46	0.00	21,912.46
10/31/2028	Garage Door - Paint	920-001-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	Garage Door - Paint	920-002-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	Garage Door - Paint	920-003-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	Garage Door - Paint	920-004-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
					\$ 112,173.39	\$ 0.00	\$ 112,173.39
Year --2029							
07/01/2029	Door - Unit Entry Metal	920-001-0003	07/01/2017	12:00	5,739.10	0.00	5,739.10
07/01/2029	Door - Unit Entry Metal	920-003-0003	07/01/2017	12:00	5,739.10	0.00	5,739.10
07/01/2029	Garage Door - Replace	920-001-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	Garage Door - Replace	920-002-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	Garage Door - Replace	920-003-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	Garage Door - Replace	920-004-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
10/31/2029	Sign - Monument Entry	910-000-0017	10/31/2014	15:00	2,036.86	0.00	2,036.86
					\$ 688,703.18	\$ 0.00	\$ 688,703.18
Year --2031							
07/31/2031	Block Wall - Repairs	910-000-0018	07/31/2028	3:00	3,529.57	0.00	3,529.57
					\$ 3,529.57	\$ 0.00	\$ 3,529.57
Year --2033							
07/01/2033	Door - Unit Entry Metal	920-004-0003	07/01/2019	14:00	6,273.31	0.00	6,273.31
					\$ 6,273.31	\$ 0.00	\$ 6,273.31
Year --2034							
07/31/2034	Block Wall - Repairs	910-000-0018	07/31/2031	3:00	3,773.21	0.00	3,773.21
07/01/2034	Gutters & Downspouts - Replace	920-002-0001	07/01/1999	35:00	37,732.13	0.00	37,732.13
07/01/2034	Railing - Paint	920-001-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Expenditures - By Year

Date	Description	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
07/01/2034	Railing - Paint	920-002-0005	07/01/2019	15:00	\$ 3,395.89	\$ 0.00	\$ 3,395.89
07/01/2034	Railing - Paint	920-003-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
07/01/2034	Railing - Paint	920-004-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
07/01/2034	Railing - Replace	920-001-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	Railing - Replace	920-002-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	Railing - Replace	920-003-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	Railing - Replace	920-004-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	Roof - Asphalt Shingle	920-002-0010	07/01/1999	35:00	432,976.24	0.00	432,976.24
07/01/2034	Stucco - Paint	920-001-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
07/01/2034	Stucco - Paint	920-002-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
07/01/2034	Stucco - Paint	920-003-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
07/01/2034	Stucco - Paint	920-004-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
07/01/2034	Trim Paint	920-001-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	Trim Paint	920-002-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	Trim Paint	920-003-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	Trim Paint	920-004-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
10/31/2034	Asphalt Overlay	910-000-0013	10/31/2014	20:00	154,016.64	0.00	154,016.64
					\$ 2,415,492.10	\$ 0.00	\$ 2,415,492.10
Year --2035							
07/01/2035	Gutters & Downspouts - Replace	920-003-0001	07/01/2000	35:00	38,581.11	0.00	38,581.11
07/01/2035	Roof - Asphalt Shingle	920-003-0010	07/01/2000	35:00	442,718.20	0.00	442,718.20
10/31/2035	Asphalt Seal Coat	910-000-0012	10/31/2028	7:00	24,022.68	0.00	24,022.68
10/31/2035	Garage Door - Paint	920-001-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	Garage Door - Paint	920-002-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	Garage Door - Paint	920-003-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	Garage Door - Paint	920-004-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	Lights, Bollard - Replace	910-000-0015	10/31/2023	12:00	40,115.39	0.00	40,115.39
					\$ 623,030.02	\$ 0.00	\$ 623,030.02
Year --2037							
07/31/2037	Block Wall - Repairs	910-000-0018	07/31/2034	3:00	4,033.68	0.00	4,033.68
					\$ 4,033.68	\$ 0.00	\$ 4,033.68
Year --2038							
07/01/2038	Door - Unit Entry Metal	920-002-0003	07/01/2027	11:00	7,011.54	0.00	7,011.54
07/01/2038	Gutters & Downspouts - Replace	920-004-0001	07/01/2003	35:00	41,244.37	0.00	41,244.37
07/01/2038	Roof - Asphalt Shingle	920-004-0010	07/01/2003	35:00	473,279.10	0.00	473,279.10
					\$ 521,535.01	\$ 0.00	\$ 521,535.01
Year --2039							
07/01/2039	Gutters & Downspouts - Replace	920-001-0001	07/01/2004	35:00	42,172.36	0.00	42,172.36
07/01/2039	Roof - Asphalt Shingle	920-001-0010	07/01/2004	35:00	483,927.88	0.00	483,927.88
					\$ 526,100.24	\$ 0.00	\$ 526,100.24

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Year

Date	Description	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Year --2040							
07/31/2040	Block Wall - Repairs	910-000-0018	07/31/2037	3:00	\$ 4,312.12	\$ 0.00	\$ 4,312.12
10/31/2040	Fence, Block Wall - Paint	910-000-0016	10/31/2028	12:00	28,618.77	0.00	28,618.77
					\$ 32,930.89	\$ 0.00	\$ 32,930.89
Year --2041							
07/01/2041	Door - Unit Entry Metal	920-001-0003	07/01/2029	12:00	7,495.55	0.00	7,495.55
07/01/2041	Door - Unit Entry Metal	920-003-0003	07/01/2029	12:00	7,495.55	0.00	7,495.55
					\$ 14,991.10	\$ 0.00	\$ 14,991.10
Year --2042							
10/31/2042	Asphalt Seal Coat	910-000-0012	10/31/2035	7:00	28,071.44	0.00	28,071.44
10/31/2042	Garage Door - Paint	920-001-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	Garage Door - Paint	920-002-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	Garage Door - Paint	920-003-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	Garage Door - Paint	920-004-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
					\$ 118,741.48	\$ 0.00	\$ 118,741.48
Year --2043							
07/31/2043	Block Wall - Repairs	910-000-0018	07/31/2040	3:00	4,609.79	0.00	4,609.79
					\$ 4,609.79	\$ 0.00	\$ 4,609.79
Year --2044							
07/01/2044	Light Fixtures - Replace	920-001-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
07/01/2044	Light Fixtures - Replace	920-002-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
07/01/2044	Light Fixtures - Replace	920-003-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
07/01/2044	Light Fixtures - Replace	920-004-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
10/31/2044	Sign - Monument Entry	910-000-0017	10/31/2029	15:00	2,843.88	0.00	2,843.88
					\$ 112,197.32	\$ 0.00	\$ 112,197.32

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Component

Date	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Asphalt Overlay Item - 0013						
10/31/2034	910-000-0013	10/31/2014	20:00	\$ 154,016.64	\$ 0.00	\$ 154,016.64
				\$ 154,016.64	\$ 0.00	\$ 154,016.64
Asphalt Repair Item - 0011						
08/01/2016	910-000-0011	08/01/1986	30:00	15,000.00	0.00	15,000.00
				\$ 15,000.00	\$ 0.00	\$ 15,000.00
Asphalt Seal Coat Item - 0012						
10/31/2021	910-000-0012	10/31/2014	7:00	17,592.80	0.00	17,592.80
10/31/2028	910-000-0012	10/31/2021	7:00	20,557.88	0.00	20,557.88
10/31/2035	910-000-0012	10/31/2028	7:00	24,022.68	0.00	24,022.68
10/31/2042	910-000-0012	10/31/2035	7:00	28,071.44	0.00	28,071.44
				\$ 90,244.80	\$ 0.00	\$ 90,244.80
Block Wall - Repairs Item - 0018						
07/31/2016	910-000-0018	07/31/2013	3:00	2,527.97	0.00	2,527.97
07/31/2019	910-000-0018	07/31/2016	3:00	2,702.47	0.00	2,702.47
07/31/2022	910-000-0018	07/31/2019	3:00	2,889.03	0.00	2,889.03
07/31/2025	910-000-0018	07/31/2022	3:00	3,088.46	0.00	3,088.46
07/31/2028	910-000-0018	07/31/2025	3:00	3,301.65	0.00	3,301.65
07/31/2031	910-000-0018	07/31/2028	3:00	3,529.57	0.00	3,529.57
07/31/2034	910-000-0018	07/31/2031	3:00	3,773.21	0.00	3,773.21
07/31/2037	910-000-0018	07/31/2034	3:00	4,033.68	0.00	4,033.68
07/31/2040	910-000-0018	07/31/2037	3:00	4,312.12	0.00	4,312.12
07/31/2043	910-000-0018	07/31/2040	3:00	4,609.79	0.00	4,609.79
				\$ 34,767.95	\$ 0.00	\$ 34,767.95
Door - Unit Entry Metal Item - 0003						
07/01/2016	920-002-0003	07/01/2005	11:00	4,297.55	0.00	4,297.55
07/01/2017	920-001-0003	07/01/2005	12:00	4,394.24	0.00	4,394.24
07/01/2017	920-003-0003	07/01/2005	12:00	4,394.24	0.00	4,394.24
07/01/2019	920-004-0003	07/01/2005	14:00	4,594.21	0.00	4,594.21
07/01/2027	920-002-0003	07/01/2016	11:00	5,489.30	0.00	5,489.30
07/01/2029	920-001-0003	07/01/2017	12:00	5,739.10	0.00	5,739.10
07/01/2029	920-003-0003	07/01/2017	12:00	5,739.10	0.00	5,739.10
07/01/2033	920-004-0003	07/01/2019	14:00	6,273.31	0.00	6,273.31
07/01/2038	920-002-0003	07/01/2027	11:00	7,011.54	0.00	7,011.54
07/01/2041	920-001-0003	07/01/2029	12:00	7,495.55	0.00	7,495.55
07/01/2041	920-003-0003	07/01/2029	12:00	7,495.55	0.00	7,495.55
				\$ 62,923.69	\$ 0.00	\$ 62,923.69
Fence, Block Wall - Paint Item - 0016						
10/31/2016	910-000-0016	10/31/2004	12:00	16,777.66	0.00	16,777.66
10/31/2028	910-000-0016	10/31/2016	12:00	21,912.46	0.00	21,912.46

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Component

Date	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Fence, Block Wall - Paint Item - 0016						
10/31/2040	910-000-0016	10/31/2028	12:00	\$ 28,618.77	\$ 0.00	\$ 28,618.77
				\$ 67,308.89	\$ 0.00	\$ 67,308.89
Garage Door - Paint Item - 0014						
10/31/2021	920-001-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	920-002-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	920-003-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2021	920-004-0014	10/31/2014	7:00	14,206.07	0.00	14,206.07
10/31/2028	920-001-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	920-002-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	920-003-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2028	920-004-0014	10/31/2021	7:00	16,600.35	0.00	16,600.35
10/31/2035	920-001-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	920-002-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	920-003-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2035	920-004-0014	10/31/2028	7:00	19,398.16	0.00	19,398.16
10/31/2042	920-001-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	920-002-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	920-003-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
10/31/2042	920-004-0014	10/31/2035	7:00	22,667.51	0.00	22,667.51
				\$ 291,488.36	\$ 0.00	\$ 291,488.36
Garage Door - Replace Item - 0004						
07/01/2029	920-001-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	920-002-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	920-003-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
07/01/2029	920-004-0004	07/01/2004	25:00	168,797.03	0.00	168,797.03
				\$ 675,188.12	\$ 0.00	\$ 675,188.12
Gutters & Downspouts - Replace Item - 0001						
07/01/2034	920-002-0001	07/01/1999	35:00	37,732.13	0.00	37,732.13
07/01/2035	920-003-0001	07/01/2000	35:00	38,581.11	0.00	38,581.11
07/01/2038	920-004-0001	07/01/2003	35:00	41,244.37	0.00	41,244.37
07/01/2039	920-001-0001	07/01/2004	35:00	42,172.36	0.00	42,172.36
				\$ 159,729.97	\$ 0.00	\$ 159,729.97
Light Fixtures - Replace Item - 0002						
07/01/2024	920-001-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2024	920-002-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2024	920-003-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2024	920-004-0002	07/01/2004	20:00	17,518.87	0.00	17,518.87
07/01/2044	920-001-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
07/01/2044	920-002-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Component

Date	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Light Fixtures - Replace Item - 0002						
07/01/2044	920-003-0002	07/01/2024	20:00	\$ 27,338.36	\$ 0.00	\$ 27,338.36
07/01/2044	920-004-0002	07/01/2024	20:00	27,338.36	0.00	27,338.36
				\$ 179,428.92	\$ 0.00	\$ 179,428.92
Lights, Bollard - Replace Item - 0015						
10/31/2023	910-000-0015	10/31/2011	12:00	30,715.05	0.00	30,715.05
10/31/2035	910-000-0015	10/31/2023	12:00	40,115.39	0.00	40,115.39
				\$ 70,830.44	\$ 0.00	\$ 70,830.44
Railing - Paint Item - 0005						
07/01/2019	920-001-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	920-002-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	920-003-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2019	920-004-0005	07/01/2004	15:00	2,432.23	0.00	2,432.23
07/01/2034	920-001-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
07/01/2034	920-002-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
07/01/2034	920-003-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
07/01/2034	920-004-0005	07/01/2019	15:00	3,395.89	0.00	3,395.89
				\$ 23,312.48	\$ 0.00	\$ 23,312.48
Railing - Replace Item - 0009						
07/01/2034	920-001-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	920-002-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	920-003-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
07/01/2034	920-004-0009	07/01/2004	30:00	39,618.74	0.00	39,618.74
				\$ 158,474.96	\$ 0.00	\$ 158,474.96
Roof - Asphalt Shingle Item - 0010						
07/01/2034	920-002-0010	07/01/1999	35:00	432,976.24	0.00	432,976.24
07/01/2035	920-003-0010	07/01/2000	35:00	442,718.20	0.00	442,718.20
07/01/2038	920-004-0010	07/01/2003	35:00	473,279.10	0.00	473,279.10
07/01/2039	920-001-0010	07/01/2004	35:00	483,927.88	0.00	483,927.88
				\$ 1,832,901.42	\$ 0.00	\$ 1,832,901.42
Sign - Monument Entry Item - 0017						
10/31/2029	910-000-0017	10/31/2014	15:00	2,036.86	0.00	2,036.86
10/31/2044	910-000-0017	10/31/2029	15:00	2,843.88	0.00	2,843.88
				\$ 4,880.74	\$ 0.00	\$ 4,880.74
Stucco - Paint Item - 0006						
07/01/2019	920-001-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	920-002-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	920-003-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2019	920-004-0006	07/01/2004	15:00	243,222.71	0.00	243,222.71
07/01/2034	920-001-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future



Expenditures - By Component

Date	Code	Service Date	Est Life	Future Cost	Salvage Value	Net Expenditure
Stucco - Paint Item - 0006						
07/01/2034	920-002-0006	07/01/2019	15:00	\$ 339,589.21	\$ 0.00	\$ 339,589.21
07/01/2034	920-003-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
07/01/2034	920-004-0006	07/01/2019	15:00	339,589.21	0.00	339,589.21
				\$ 2,331,247.68	\$ 0.00	\$ 2,331,247.68
Trim Paint Item - 0007						
07/01/2019	920-001-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	920-002-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	920-003-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2019	920-004-0007	07/01/2004	15:00	45,942.07	0.00	45,942.07
07/01/2034	920-001-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	920-002-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	920-003-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
07/01/2034	920-004-0007	07/01/2019	15:00	64,144.63	0.00	64,144.63
				\$ 440,346.80	\$ 0.00	\$ 440,346.80

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

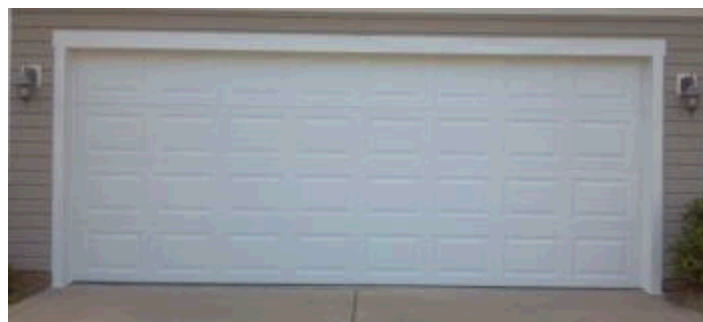
Garage Door - Replace

Item Number	4	Measurement Basis	Each
Type	Common Area	Estimated Useful Life	25:00
Category	Doors	Basis Cost	2,500.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0004			07/01/2004	07/01/2029	13:06	25:00	50.00 \$	125,000.00 \$	168,797.03
920-002-0004			07/01/2004	07/01/2029	13:06	25:00	50.00 \$	125,000.00 \$	168,797.03
920-003-0004			07/01/2004	07/01/2029	13:06	25:00	50.00 \$	125,000.00 \$	168,797.03
920-004-0004			07/01/2004	07/01/2029	13:06	25:00	50.00 \$	125,000.00 \$	168,797.03
								\$ 500,000.00	\$ 675,188.12

Comments

Replace double garage doors



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Block Wall - Repairs

Item Number	18	Measurement Basis	Allow
Type	Common Area	Estimated Useful Life	3:00
Category	Fences & Walls	Basis Cost	2,500.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0018		Good	07/31/2013	07/31/2016	0:06	3:00	1.00	\$ 2,500.00	\$ 2,527.97
								\$ 2,500.00	\$ 2,527.97

Comments

Allowance for unanticipated repairs to block wall



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Light Fixtures - Replace

Item Number	2	Measurement Basis	Each
Type	Common Area	Estimated Useful Life	20:00
Category	Lights	Basis Cost	145.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0002			07/01/2004	07/01/2024	8:06	20:00	100.00 \$	14,500.00 \$	17,518.87
920-002-0002			07/01/2004	07/01/2024	8:06	20:00	100.00 \$	14,500.00 \$	17,518.87
920-003-0002			07/01/2004	07/01/2024	8:06	20:00	100.00 \$	14,500.00 \$	17,518.87
920-004-0002			07/01/2004	07/01/2024	8:06	20:00	100.00 \$	14,500.00 \$	17,518.87
								\$ 58,000.00	\$ 70,075.48

Comments

Replace lighting fixtures over unit entry door and on back balcony



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

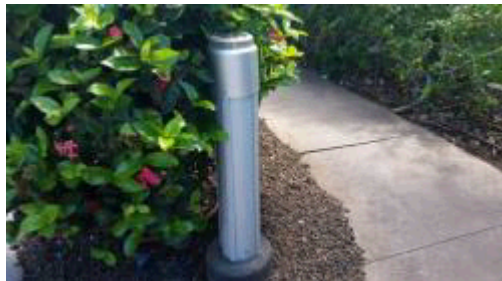
Lights, Bollard - Replace

Item Number	15	Measurement Basis	Each
Type	Common Area	Estimated Useful Life	12:00
Category	Lights	Basis Cost	235.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0015		Good	10/31/2011	10/31/2023	7:09	12:00	110.00	\$ 25,850.00	\$ 30,715.05
								\$ 25,850.00	\$ 30,715.05

Comments

Replace lights as necessary



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

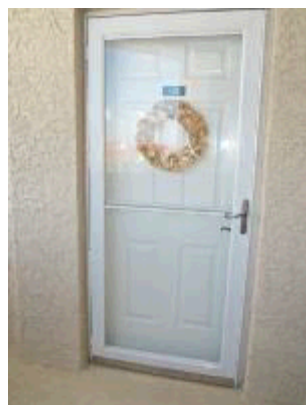
Door - Unit Entry Metal

Item Number	3	Measurement Basis	Each
Type	Common Area	Estimated Useful Life	10:00
Category	Paint	Basis Cost	85.00
Tracking	Logistical		
Method	Adjusted		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0003			07/01/2005	07/01/2017	1:06	12:00	50.00 \$	4,250.00 \$	4,394.24
920-002-0003			07/01/2005	07/01/2016	0:06	11:00	50.00 \$	4,250.00 \$	4,297.55
920-003-0003			07/01/2005	07/01/2017	1:06	12:00	50.00 \$	4,250.00 \$	4,394.24
920-004-0003			07/01/2005	07/01/2019	3:06	14:00	50.00 \$	4,250.00 \$	4,594.21
								\$ 17,000.00	\$ 17,680.24

Comments

Metal unit entry doors which are association's responsibility to maintain under CC&R's.



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Fence, Block Wall - Paint

Item Number	16	Measurement Basis	Job
Type	Common Area	Estimated Useful Life	12:00
Category	Paint	Basis Cost	16,500.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0016		Fair	10/31/2004	10/31/2016	0:09	12:00	1.00	\$ 16,500.00	\$ 16,777.66
								\$ 16,500.00	\$ 16,777.66

Comments

Paint perimeter block wall

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

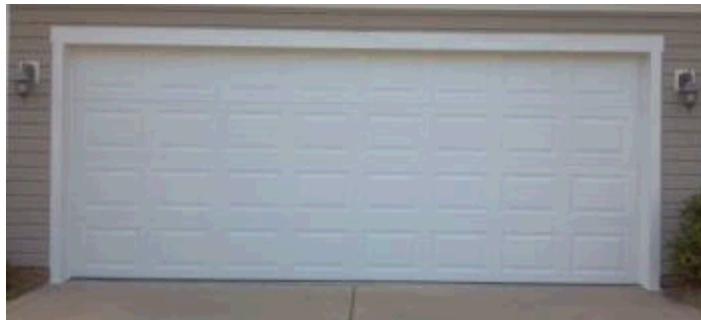
Garage Door - Paint

Item Number	14	Measurement Basis	Each
Type	Common Area	Estimated Useful Life	7:00
Category	Paint	Basis Cost	250.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0014		Good	10/31/2014	10/31/2021	5:09	7:00	50.00 \$	12,500.00 \$	14,206.07
920-002-0014		Good	10/31/2014	10/31/2021	5:09	7:00	50.00 \$	12,500.00 \$	14,206.07
920-003-0014		Good	10/31/2014	10/31/2021	5:09	7:00	50.00 \$	12,500.00 \$	14,206.07
920-004-0014		Good	10/31/2014	10/31/2021	5:09	7:00	50.00 \$	12,500.00 \$	14,206.07
								\$ 50,000.00	\$ 56,824.28

Comments

Paint



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

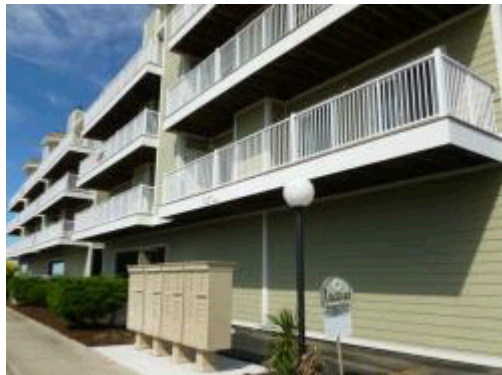
Railing - Paint

Item Number	5	Measurement Basis	LF
Type	Common Area	Estimated Useful Life	15:00
Category	Paint	Basis Cost	3.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0005			07/01/2004	07/01/2019	3:06	15:00	750.00 \$	2,250.00 \$	2,432.23
920-002-0005			07/01/2004	07/01/2019	3:06	15:00	750.00 \$	2,250.00 \$	2,432.23
920-003-0005			07/01/2004	07/01/2019	3:06	15:00	750.00 \$	2,250.00 \$	2,432.23
920-004-0005			07/01/2004	07/01/2019	3:06	15:00	750.00 \$	2,250.00 \$	2,432.23
								\$ 9,000.00	\$ 9,728.92

Comments

Paint metal railings



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Stucco - Paint

Item Number	6	Measurement Basis	Job
Type	Common Area	Estimated Useful Life	15:00
Category	Paint	Basis Cost	225,000.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0006	Entire building	Good	07/01/2004	07/01/2019	3:06	15:00	1.00 \$	225,000.00 \$	243,222.71
920-002-0006	Entire building	Good	07/01/2004	07/01/2019	3:06	15:00	1.00 \$	225,000.00 \$	243,222.71
920-003-0006	Entire building	Good	07/01/2004	07/01/2019	3:06	15:00	1.00 \$	225,000.00 \$	243,222.71
920-004-0006	Entire building	Good	07/01/2004	07/01/2019	3:06	15:00	1.00 \$	225,000.00 \$	243,222.71
								\$ 900,000.00	\$ 972,890.84

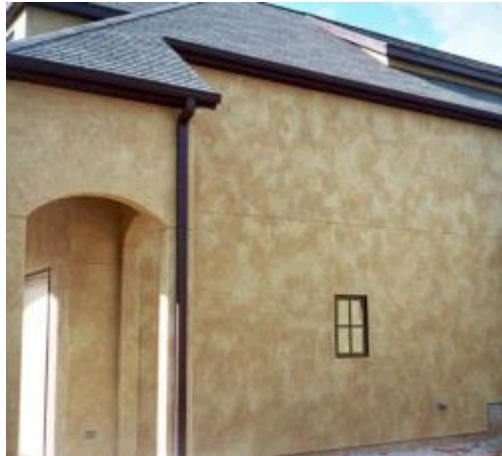
Comments

Paint stucco exterior building surfaces on 15 year cycle

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation: 2.25% Investment: 0.95% Contribution Factor: 2.50% Calc: Future



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Trim Paint

Item Number	7	Measurement Basis	Job
Type	Common Area	Estimated Useful Life	15:00
Category	Paint	Basis Cost	42,500.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0007	Entire building		07/01/2004	07/01/2019	3:06	15:00	1.00 \$	42,500.00 \$	45,942.07
920-002-0007	Entire building		07/01/2004	07/01/2019	3:06	15:00	1.00 \$	42,500.00 \$	45,942.07
920-003-0007	Entire building		07/01/2004	07/01/2019	3:06	15:00	1.00 \$	42,500.00 \$	45,942.07
920-004-0007	Entire building		07/01/2004	07/01/2019	3:06	15:00	1.00 \$	42,500.00 \$	45,942.07
								\$ 170,000.00	\$ 183,768.28

Comments

Paint wood trim on 15 year cycle



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Asphalt Overlay

Item Number	13	Measurement Basis	SF
Type	Common Area	Estimated Useful Life	20:00
Category	Paving	Basis Cost	1.18
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0013		Good	10/31/2014	10/31/2034	18:09	20:00	86000.00	\$ 101,480.00	\$ 154,016.64
								\$ 101,480.00	\$ 154,016.64

Comments

1" asphalt overlay in parking lot area

The overlay extends the life of the paved parking lot by as much as 20 years



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Asphalt Repair

Item Number	11	Measurement Basis	Job
Type	Common Area	Estimated Useful Life	30:00
Category	Paving	Basis Cost	15,000.00
Tracking	Logistical		
Method	One Time		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0011		Good	08/01/1986	08/01/2016	0:07	30:00	1.00	\$ 15,000.00	\$ 15,000.00
								\$ 15,000.00	\$ 15,000.00

Comments

Estimated one time spot repair of parking lot



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Asphalt Seal Coat

Item Number	12	Measurement Basis	SF
Type	Common Area	Estimated Useful Life	7:00
Category	Paving	Basis Cost	0.18
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0012		Good	10/31/2014	10/31/2021	5:09	7:00	86000.00	\$ 15,480.00	\$ 17,592.80
								\$ 15,480.00	\$ 17,592.80

Comments

Seal coat on asphalt surfaces, scheduled for every 7 years.

Sealcoat is a liquid that is applied to asphalt to protect it from oxidation and the damage caused by winter cracking, as well as UV rays and traffic. In areas of the world that experience freezing and thawing, the reapplication timeline will likely need to be accelerated.

Sealcoating is needed in cold climates, but is useful in warmer climates as well. Since asphalt is a petroleum product, other petroleum products will react with the surface. This includes vehicle oil and gasoline. The sealcoat will act as a barrier against those materials. A sealcoat is not a crack filling agent; this must be done prior to applying the sealcoat.[1] Properly applied, sealcoat can save an owner huge costs over the life of a hot mix asphalt pavement.

Periodic asphalt maintenance such as sealcoating will extend the life of the asphalt up to 30 years. New asphalt surfaces that are sealcoated within their first year will experience less degradation from UV damage, water and traffic.[2] When applied appropriately and at the right time, sealcoating prevents oxidation caused by harsh weather like rain and snow. By sealcoating annually, asphalt can be preserved for an extended period of time. Sealcoating also saves property owners and local government from spending money on costly asphalt repairs.

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Pavement sealers are applied with either pressurized spray equipment, or self-propelled squeegee machines or by hand with a squeegee. Equipment must have continuous agitation to maintain consistency of the sealer mix. The process is typically a two coat application which requires 24 to 48 hours of curing before vehicles can be allowed back on the surface. Prior to application the surface must be completely clean using sweeping methods and/or blowers. If the surface is not clean, then poor adhesion could result. Once the surface is properly prepared, then properly mixed sealer will be applied at about 60 square feet per gallon per coat.

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

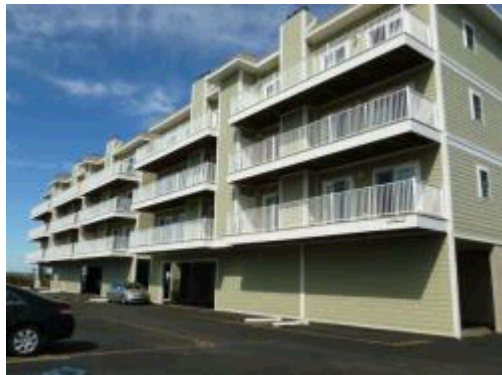
Railing - Replace

Item Number	9	Measurement Basis	LF
Type	Common Area	Estimated Useful Life	30:00
Category	Railing	Basis Cost	35.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0009			07/01/2004	07/01/2034	18:06	30:00	750.00 \$	26,250.00 \$	39,618.74
920-002-0009			07/01/2004	07/01/2034	18:06	30:00	750.00 \$	26,250.00 \$	39,618.74
920-003-0009			07/01/2004	07/01/2034	18:06	30:00	750.00 \$	26,250.00 \$	39,618.74
920-004-0009			07/01/2004	07/01/2034	18:06	30:00	750.00 \$	26,250.00 \$	39,618.74
								\$ 105,000.00	\$ 158,474.96

Comments

Replace metal railings



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Gutters & Downspouts - Replace

Item Number	1	Measurement Basis	Set
Type	Common Area	Estimated Useful Life	35:00
Category	Roofing	Basis Cost	25,000.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0001			07/01/2004	07/01/2039	23:06	35:00	1.00 \$	25,000.00 \$	42,172.36
920-002-0001			07/01/1999	07/01/2034	18:06	35:00	1.00 \$	25,000.00 \$	37,732.13
920-003-0001			07/01/2000	07/01/2035	19:06	35:00	1.00 \$	25,000.00 \$	38,581.11
920-004-0001			07/01/2003	07/01/2038	22:06	35:00	1.00 \$	25,000.00 \$	41,244.37
								\$ 100,000.00 \$	159,729.97

Comments

Replace as necessary

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation: 2.25% Investment: 0.95% Contribution Factor: 2.50% Calc: Future



Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

Component List - Full Detail

Roof - Asphalt Shingle

Item Number	10	Measurement Basis	SF
Type	Common Area	Estimated Useful Life	35:00
Category	Roofing	Basis Cost	6.75
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
920-001-0010		Good	07/01/2004	07/01/2039	23:06	35:00	42500.00 \$	286,875.00 \$	483,927.88
920-002-0010		Good	07/01/1999	07/01/2034	18:06	35:00	42500.00 \$	286,875.00 \$	432,976.24
920-003-0010		Good	07/01/2000	07/01/2035	19:06	35:00	42500.00 \$	286,875.00 \$	442,718.20
920-004-0010		Good	07/01/2003	07/01/2038	22:06	35:00	42500.00 \$	286,875.00 \$	473,279.10
								\$ 1,147,500.00	\$ 1,832,901.42

Comments

Roof is asphalt shingle with a 30 year warranty



Asphalt Shingle Roof

Two types of base materials are used to make asphalt shingles: A formerly-living organic base and fiberglass base. Both types are made in a similar manner with asphalt or modified-asphalt applied to one or both sides of the asphalt-saturated base, covered with slate, schist, quartz, vitrified brick,

Sample Condominium Association

Analysis Date - January 1, 2016

Inflation:2.25% Investment:0.95% Contribution Factor:2.50% Calc:Future

stone or ceramic granules and the back side treated with sand, talc or mica to prevent the shingles from sticking to each other before use. The top surface granules block ultra-violet light which causes the shingles to deteriorate, provides some physical protection of the asphalt and gives the shingles their color. Some shingles have copper or other materials added to the surface to help prevent algae growth. Self-sealing strips are standard on shingles to help prevent the shingles from being blown off by high winds. This material is typically limestone or fly-ash-modified resins, or polymer-modified bitumen. American Society of Civil Engineers ASTM D7158 is the standard most United States residential building codes use as their wind resistance standard for most discontinuous, steep-slope roof coverings (including asphalt shingles) with the following class ratings: Class D – Passed at basic wind speeds up to and including 90 mph; Class G – Passed at basic wind speeds up to and including 120 mph; and Class H – Passed at basic wind speeds up to and including 150 mph. An additive known as styrene-butadiene-styrene (SBS), sometimes called modified or rubberized asphalt, is sometimes added to the asphalt mixture to make shingles more resistant to thermal cracking, as well as more resistant to damage from hail impacts. Some manufacturers use a fabric backing known as a "scrim" on the back side of shingles to make them more impact resistant. Most insurance companies offer discounts to homeowners for using Class 4 impact rated shingles.

Organic

Organic shingles are made with a base mat of formerly living (organic) materials such as paper (waste paper), cellulose, wood fiber, or other materials saturated with asphalt to make it waterproof, then a top coating of adhesive asphalt is applied and ceramic granules are then embedded. Organic shingles contain around 40% more asphalt per square (100 sq ft.) than fiberglass shingles. The paper-based nature of "organic" shingles leaves them more prone to fire damage, and their highest FM rating for fire is class "B". Organic shingles are less brittle than fiberglass shingles in cold weather.

The older organic (wood and paper pulp product) versions were very durable and hard to tear, an important property when considering wind uplift of shingles in heavy storms. Also, some organic shingles produced before the early 1980s may contain asbestos.

Fiberglass

Fiberglass shingles have a base layer of glass fiber reinforcing mat. The mat is made from wet, random-laid fiberglass bonded with urea-formaldehyde resin. The mat is then coated with asphalt which contains mineral fillers and makes the fiberglass shingle waterproof. Fiberglass shingles typically obtain a class "A" fire rating as the fiberglass mat resists fire better than organic/paper mats. Fiberglass reinforcement was devised as the replacement for asbestos paper reinforcement of roofing shingles and typically ranges from 1.8 to 2.3 pounds/square foot.

Fiberglass shingles are slowly replacing organic felt shingles and by 1982 the production of fiberglass shingles overtook organic shingles. Widespread hurricane damage in Florida during the 1990s prompted the industry to adhere to a 1700-gram tear value on finished asphalt shingles.

Per 2003 International Building Code Sections 1507.2.1 and 1507.2.2, asphalt shingles shall only be used on roof slopes of two units vertical in 12 units horizontal (17% slope) or greater. Asphalt shingles shall be fastened to solidly sheathed decks.

Asphalt shingles have varying qualities which help them survive wind, hail, or fire damage and discoloration.

- The American Society of Testing Materials (ASTM) has developed specifications for roof shingles: ASTM D 225-86 (Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules) and ASTM D3462-87 (Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules), ASTM D3161, Standard Test Method for Wind-Resistance of Asphalt Shingles (2005),

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- Many **shapes** and **textures** of asphalt shingles are available: 3 tab, jet, "signature cut", t-lock, tie lock, etc. Architectural (laminated) shingles are a multi-layer, laminated shingle which gives more varied, contoured visual effect to a roof surface and add more resistance for water. These shingles are designed to avoid repetitive patterns in the shingle appearance. Special shingles are needed for the eaves starter course and ridge caps. Laminated shingles are heavier and more durable than traditional 3-tab shingle designs.
 - **Solar reflecting** shingles help reduce air conditioning costs in hot climates by being a better reflective surface.
 - **Wind damage:** Asphalt shingles come in varying resistance to wind damage. Shingles with the highest fastener pull through resistance, bond strength of the self seal adhesive, properly nailed will resist wind damage the best. Extra precautions can be taken in high wind areas to fasten a durable underlayment and/or seal the plywood seams in the event the shingles are blown off. UL 997 Wind Resistance of Prepared Roof Covering Materials class 1 is best Wind Resistance roof standard and ASTM D 3161 class F is best for bond strength.
 - **Hail damage:** Hail storms can damage asphalt shingles. For impact resistance UL 2218 Class 4 is best. This increases survivability from hail storms but the shingles become more susceptible to hail damage with age.
 - **Fire resistance:** Forest fires and other exterior fires risk roofs catching on fire. Fiberglass shingles have a better, class A, flame spread rating based on UL 790, and ASTM E 108 testing. Organic shingles have a class C rating.
 - **Algae resistance** Algae is not believed to damage asphalt shingles but it may be objectionable aesthetically. Different treatment methods are used to prevent discoloration from algae growth on the roof. Moss feeds on algae and any other debris on the roof. Some manufactures offer a 5- to 10-year warranty against algae growth on their algae resistant shingles.
 - **Locking shingles:** Special asphalt shingles are designed to lock together called tie lock or T lock.
 - **Durability** Shingle durability is ranked by warranted life, ranging from 20 years to lifetime warranties are available. However a stated warranty is not a guarantee of durability. A shingle manufacturer's warranty may pro-rate repair costs, cover materials only, have different warranty periods for different types of damage, and transfer to another owner.

Shingles tend to last longer where the weather stays consistent, either consistently warm, or consistently cool. Thermal shock can damage shingles, when the ambient temperature changes dramatically within a very short period of time. "Experiments...have noted that the greatest cause of asphalt shingle aging is thermal loading." Over time the asphalt becomes oxidized and becomes brittle. Roof orientation and ventilation can extend the service life of a roof by reducing temperatures. Shingles should not be applied when temperatures are below 10 °C (50 °F), as each shingle must seal to the layer below it to form a monolithic structure. The underlying exposed asphalt must be softened by sunlight and heat. A few shingle types utilize release tape which must be removed just prior to installation.

The protective nature of asphalt shingles primarily comes from the long-chain hydrocarbons impregnating the paper. Over time in the hot sun, the hydrocarbons soften and when rain falls the hydrocarbons are gradually washed out of the shingles and down onto the ground. Along eaves and complex rooflines more water is channeled so in these areas the loss occurs more quickly. Eventually the loss of the heavy oils causes the fibers to shrink, exposing the nail heads under the shingle flaps. The shrinkage also breaks up the surface coating of sand adhered to the surface of the paper, and

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eventually causes the paper to begin to tear itself apart. Once the nail heads are exposed, water running down the roof can seep into the building around the nail shank, resulting in rotting of roof building materials and causing moisture damage to ceilings and paint inside.

Moss and debris which remains on the shingles will cause premature deterioration and should be physically removed from the roof or with a copper sulfate, zinc chloride or other solution carefully applied and thoroughly rinsed. To prevent the growth of algae and moss install zinc or copper strips or wire at the ridge and every four to six feet down the roof. Black algae growth can be cleaned with a bleach solution.

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Component List - Full Detail

Sign - Monument Entry

Item Number	17	Measurement Basis	Job
Type	Common Area	Estimated Useful Life	15:00
Category	Signs	Basis Cost	1,500.00
Tracking	Logistical		
Method	Fixed		

Location	Desc.	Condition	Service Date	Replace Date	Rem Life	Adj Life	Quantity	Replacement Cost	
								Current	Future
910-000-0017		Good	10/31/2014	10/31/2029	13:09	15:00	1.00	\$ 1,500.00	\$ 2,036.86
								\$ 1,500.00	\$ 2,036.86

Comments

Refurbish monument entry sign



Reserve Studies - The Complete Guide

10– Reserve Study Software and Calculations

1000 - Introduction – The Importance of Software

1001 - Reserve Study Calculations

10.1 – Appendix - ICBI Calculation Principles

10.2 – Appendix - ICBI Software Principles and Standards

1000 - Introduction – The Importance of Software

1000.1 – The importance of software in the reserve study process cannot be overstated. The authors have observed a number of reserve study software issues over the years, including:

- Incorrect calculations
- Inappropriate formats
- Manually altered financial exhibits which are inconsistent with other exhibits that are part of the same overall report
- Lack of totals so that it is virtually impossible to compare one financial exhibit to another, even though they are part of the same report
- Lack of consistency between reserve practitioners

1000.2 – CAI and APRA reserve study standards do not even mention, much less discuss, software. Both organizations have, to date, refused to consider implementing software standards that would provide for some consistency of both reporting formats and calculations for reserve studies, apparently preferring instead the individualistic approach. There are many in the community association industry who complain about the lack of consistency in reporting formats. Most of these individuals are unaware of the differences in calculations, as there is no transparency of calculations, and no standards existed until ICBI adopted standards in April 2015.

1000.3 – The ICBI software, calculation, and reporting standards are discussed in Chapter 4. These issues are all closely related, as the ICBI software standards incorporate the calculation and reporting standards. If a reserve study software product meets ICBI software standards, then the reserve study reports should automatically meet ICBI reporting and calculation standards.

1000.4 – CAI and APRA reserve study standards were designed for an individual approach to reserves, meaning no required consistency of reporting or calculations, and therefore no software standards.

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10– Reserve Study Software and Calculations

1000.5 - This chapter discusses the significant impact of calculations and related disclosures on the reserve study report. Most people within the community association industry have their own assumptions of how calculations should be made, without even considering that others may have different assumptions or may be making calculations in a very different manner.

1000.6 - This is not to suggest that reserve practitioners can't make their own judgment as to how calculations should be made, but it does require that any calculation methods used must be disclosed. The authors are firmly in support of the calculation and disclosure standards required by the ICBI, and of the transparency that provides to readers of reserve study reports.

1000.7 – CAI and APRA Reserve Study Standards take the approach that each reserve practitioner is free to make any calculations he or she so desires. The authors consider this to be an irresponsible approach. This failure to establish any common framework of calculations, combined with the fact that the majority of reserve practitioners do not have a background in financial calculations, has resulted in what should have been obvious to any neutral observer: calculations are inconsistent from one reserve practitioner to the next, with each generally believing that his or her method is the only correct one.

1000.8 – ICBI standards established both consistent reporting formats and consistent calculation methods. However, only ICBI members, who are required to adhere to ICBI standards and who use ICBI-certified software, can offer the industry assurance of accuracy of calculations.

1000.9 – The authors understand that many within the community association industry have difficulty accepting the above statements. However, a quick review of both CAI and APRA reserve study standards confirms that the only calculation standard considered by those two organizations was the percent funded calculation. As is fully discussed in Chapter 8, “Understanding Percent Funded”, the authors believe the calculations included in those standards are both incomplete and wrong.

1000.10 - The CAI and APRA percent funded calculation is incomplete in that it only considers a single method of making that calculation, and that method fails to comply with California law, the second largest state in terms of number of associations. Specifically, the method used does not specify whether it is using a current cost, future cost, or inflation-adjusted cost factor as the denominator in the percent funded calculation. California requires current cost method.

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10– Reserve Study Software and Calculations

1000.11 - As is more fully explained in Chapter 8, “Understanding Percent Funded”, the authors believe that the concept behind percent funded is that it attempts to measure the amount of COST recovery that should have been accumulated at a given point in time, not an amount modified by accumulated interest earnings.

1000.12 – The CAI and APRA method of calculating percent funded introduces accumulated interest earnings as part of the percent funded calculation. The effect of doing so is to dilute the denominator (the amounts that should have been set aside) by the amount of accumulated compound interest earnings. This, in turn, overstates the actual percent funded as compared to a pure cost calculated amount, as is required by ICBI standards.

1000.13 – ICBI standards further require that the impact of cost inflation be considered on the calculation of future repair and replacement costs, and that such inflation percentage rates be disclosed. This is contrasted with CAI and APRA standards, which require no such calculation, nor any disclosure as to whether or not inflation has been considered, at what rate, or for what time periods.

1000.14 – ICBI standards require that software be capable of calculating all three methods of percent funded: (1) current cost method, (2) inflation-adjusted cost method, and (3) future cost method. The authors are not aware of any statutory requirements for using the future cost method. California statutes require use of the current cost method for financial disclosure purposes. ICBI standards require use of the inflation-adjusted cost method. The authors consider the current cost method to be the worst choice for making the percent funded calculation. Therefore, any California practitioners must have software capable of calculating both the current cost method and inflation-adjusted cost method in order to comply with both ICBI standards and California law.

1000.15 – The paragraphs below describe a number of reporting and calculation issues that the authors have observed over the years that provide evidence of why consistent calculations are necessary. Establishing software standards to ensure consistent calculations is the only way to solve this issue. The software standards established by the ICBI in early 2015 achieve this.

1000.16 - The authors have observed a number of California reserve study reports that fail to meet the statutory requirements because they use either the inflation-adjusted or future cost methods

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of calculating percent funded, and cannot provide a separate current cost method calculation. Because there is no disclosure required of the method used, these reports are rarely discovered as having used the wrong method and therefore not being in compliance with the law.

1000.16 – The authors have observed that one reserve study company includes inflation for the first five years of the 30-year projection period only. Since they (sometimes) do disclose the inflation rate, any reasonable reader of the report would assume that the inflation rate carried through for the entire 30-year projection period - but that is not the case. That single calculation decision makes the entire reserve study report effectively useless for purposes of planning future expenditures. When questioned, this particular reserve practitioner simply stated that “the inflated numbers get too crazy if you inflate for the full 30 years, so we don’t carry the inflation calculation past the five-year mark.”

1000.17 – When this issue was raised in a discussion with other CAI and APRA reserve practitioners, the response was simply, “That’s unusual, but is allowed under CAI and APRA standards.” In other words, the almost complete lack of CAI and APRA calculation and disclosure standards allow for the preparation of clearly misleading reserve study reports.

1000.18 – Any attempt to defend the above described calculations would require that the reserve practitioner believes that inflation, at whatever rate, will exist for five years only, then will drop to zero for the next 25 years. The authors believe that to be an unsupportable assumption based upon an examination of the history of inflation for the last 75 years (see Chapter 7). While ICBI standards would allow such a calculation, they would require disclosures so that readers of the report are made aware of such unusual assumptions.

1000.19 – This is where the ICBI standards come into play to prevent what is allowed under the CAI and APRA standards. ICBI standards require disclosure of the inflation rate, or multiple rates, used for the entire 30-year projection period. That means the readers of the report are clearly informed about such assumptions and, based on their own perceptions, can challenge whether or not the assumptions appear valid.

1000.20 – Another example of the type of reporting issues we have observed is demonstrated by a game played by one of the leading reserve study companies that happens to use Excel as a method of calculating results and presenting its reports. The fact is that because Excel is simply a general tool that can easily manipulated, reports can be changed if results are inconvenient.

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10– Reserve Study Software and Calculations

1000.21 – The issue we observed, as we took over an Association as a client and imported their prior data into our software system, is that the funding plan in our import did not match the funding plan of the prior report prepared in Excel. We’re used to the fact that percent funded rarely agrees, because of the many varied ways in which reserve practitioners calculate that amount. In this case, however, the actual funding plan was different. The funding plan in our import showed a negative balance in years five and six, whereas the old plan prepared in Excel did not.

1000.22 – A closer examination of the underlying component data explained why. The large component that caused the problem indicated a remaining life of five years, so should have been calculated as a reserve expenditure in year five. Instead, it displayed as an expenditure in year seven. The obvious answer was that the component expenditure had simply been “moved” from year five to year seven, without modifying the component data. We know why. The reserve practitioner did not want to change the useful life, and did not want to show a negative balance. So, the expenditure had to be moved.

1000.23 – Two major software issues are apparent here: (1) the software was deficient in not allowing an “adjusted life” calculation that would retain the useful life but still allow an adjustment when useful life turned out to be either shorter or longer than estimated; and (2) the ability to allow a change in expenditure year without modifying the component data means that the software is so easily manipulated that it can’t be trusted.

1000.24 – This case also demonstrates an unfortunate lapse of judgment on the part of the reserve practitioner. Rather than addressing a funding issue appropriately, he just “gamed the system” by modifying the funding plan so it looked acceptable. The question is, will that component last the additional two years? We don’t know. It could, and extending the life from the original estimate legitimately occurs regularly. Our objection is the obvious inappropriate manipulation of data to avoid running the reserve fund balance below zero. Even if extending the life is legitimate, the software limitation causes a problem.

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10– Reserve Study Software and Calculations

1001 - Reserve Study Calculations

1001.1 – The calculations necessary in the reserve study process are critical to ending up with a good reserve study. The problem is that there are many variations of all calculations in common use, and everyone seems to think that the one they’re using is the only correct calculation method. One calculation takes place at the component level, and all others are part of the projection of future costs or the funding plan. Since there has traditionally been no consensus amongst reserve practitioners, and since there have been no requirements for disclosure of calculations used until recently, those individuals “consuming” reserve studies have no idea what calculations were used in the preparation of their own reserve studies.

1001.2 - The general impression in the community association industry is that all reserve practitioners use the same calculation methods (they don’t), and that both reserve practitioners and readers of the reserve study reports understand the calculations (they don’t). In addition to the failure to adhere to any consistent reporting formats, however, it’s generally not possible to compare reports between different reserve study companies because they’re not using the same calculation methods. Likewise, under CAI and APRA reserve study standards, they’re under no obligation to tell you what calculation methods or formulas they’re using.

1001.3 – The authors apologize in advance for offending anyone in sharing the following examples, which are based on actual incidents during the last two years. While we believe that most reserve practitioners conduct adequate site analyses, these incidents demonstrate the lack of knowledge that exists related to calculations and reporting.

1001.4 – The authors asked several reserve practitioners what method they used to calculate percent funded. NONE could answer the question. We then described the three methods of making that calculation, and three were then able to respond. One showed us his calculation, and we noticed he had incorrectly identified the method he actually used. The second told us what method he used, but we had previously tested one of his reports and knew that he used a different method. The third correctly identified that he was using the future cost method, but was unable to respond when we asked why that method was used when it produces skewed results. In other words, he knew his calculation method, but was not aware of any other method. He thought the future cost method was the only way to make the calculation, and assumed everyone else was also using it. When asked how he complied with California law requiring the current cost method, he did not respond.

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1001.5 – The above responses are, unfortunately, not surprising. Many reserve practitioners don't understand their own calculations, and can't explain them. These are the people associations are trusting to give them meaningful reserve studies.

1001.6 – Next, we asked several reserve practitioners what calculation method they were using for their funding plan. One said cash flow; the others would not respond. We suspect the reason for a non-response was they're not really sure, and didn't want to give a response that may expose how little they knew. However, the non-response tells it all. Upon further questioning about component or cash flow method, none indicated they were using the component method.

1001.7 – Several incidents occurred recently as we were being interviewed for reserve study services by associations. One asked if we were using the percent funded method of calculating reserves. We responded that percent funded is simply a measurement tool applied to a funding plan after the funding calculations have been made that attempts to evaluate status of the reserves, it is not a funding method. He insisted that one of our competitors told them they were using the percent funded method of calculating reserves. I then briefly explained how percent funded was calculated and asked the board member how he thought that could be used to create a funding plan. We got the job, but I was embarrassed for our industry that a reserve practitioner thought that percent funded is a calculation method.

1001.8 – Another Association manager asked us if we were using the full funding method to calculate reserves. We responded that full funding was a funding goal, not a funding method. Apparently, to save face in front of his board of directors, he stated that if we used the cash flow method to calculate reserves for each component that would result in full funding. He has now confused the component method as being part of the cash flow method. We responded that we could use either the component or cash flow methods, but that we recommended the cash flow method. He commented that this was the full funding method, and we responded that it was one goal that could be made using that method. There was no way to correct this man's thought processes in this setting. We didn't get the job.

1001.9 – The one calculation that most people mistakenly don't even think of as a calculation, is the calculation of replacement cost of components. If an Association is using an outside contractor for specific components, then replacement cost is normally just the contract cost. If they are using Association staff, replacement cost is material cost, plus labor and overhead. If they are purchasing equipment that needs to be installed, replacement cost is all costs to place the component into service, including shipping or delivery costs, sales tax, and installation cost.

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1001.10 – Costs that are often overlooked are the costs to remove the component being replaced, and any design or other costs associated with the acquisition and installation of the new component.

1001.11 – The authors have observed several instances of reserve studies that have simply failed to consider all costs necessary to place components into service. The result is that the reserve study fails to plan for and accumulate the correct amount of money, leaving the Association underfunded. If there is only a single, large component, this is almost a fatal problem, resulting in a special assessment. The reason that many associations are able to avoid this problem is because the accumulation of money for the replacement of many components with differing replacement schedules usually means there is sufficient money for the current project, even if it reduces funds below what was anticipated.

1001.12 - Other calculations affecting the funding plan are inflation and interest, one-time expenditures, percent funded, and component or cash flow calculation methods.

1001.13 – ICBI standards require inclusion of inflation in funding plan calculations, although estimating inflation at zero percent effectively allows one to not include inflation and still comply with ICBI standards. Most funding plans do not attempt to predict fluctuations in inflation rates during the projection period, but instead project future inflation as being the same as the current rate estimate. The inflation rate used is a judgment factor, and is generally not that different than published governmental rates. (Please refer to Chapter 7 for a complete discussion of the use of inflation in a funding plan.)

1001.14 – The decision to include or exclude interest from a funding plan can involve several considerations other than the rate of interest. Most funding plans do not attempt to predict fluctuations in interest rates over the projection period, but instead project future interest as being the same as the current rate estimate. The interest rate used is a judgment factor, and is generally not much different than rates published by the Federal Reserve Bank or major commercial banks. (Please refer to Chapter 7 for a complete discussion of the use of interest in a funding plan.)

1001.15 – Other factors that may influence the decision to include interest income in the funding plan are the impact of income taxes, and the uncertainty of interest earnings on the overall plan. However, the majority of funding plans do include interest income.

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10– Reserve Study Software and Calculations

1001.16 – Accounting guidelines indicate that income taxes should be recorded in the same fund where the related income is recorded. For that reason, most funding plans also include a provision for income taxes calculated based on interest income. Most funding plans treat this as a reduction of interest income, but some treat taxes separately as a reserve expenditure.

1001.17 - When income taxes are treated as a reduction of interest income, it is generally as a fixed percentage. Example: The tax rate is estimated at 30%, and the interest rate is reduced by 30% to a net rate. In this example, a 2% estimated interest rate is reduced by 6/10ths of one percent, and the net rate of 1.4% is used in the funding plan.

1001.18 – Another consideration regarding interest income and related income taxes is that income taxes may not qualify as appropriate expenditures for a reserve fund. As an example, California Law 5510(b) restricts reserve expenditures: “The board shall not expend funds designated as reserve funds for any purpose other than the repair, restoration, replacement, or maintenance of, or litigation involving the repair, restoration, replacement, or maintenance of, major components that the association is obligated to repair, restore, replace, or maintain and for which the reserve fund was established.” Income taxes aren’t mentioned.

1001.19 – Many associations ignore the accounting conventions and pay for all income taxes from the operating fund, regardless of which fund generated the taxable income. The authors like this approach.

1001.20 – Still other associations transfer all interest income earned on reserve investment into the operating fund, on the theory that there should be absolute certainty as to the amount of money being accumulated in reserves. Therefore, the reserve contributions are increased to offset the estimated amount of interest income that is transferred to the operating fund rather than accumulating in the reserve fund. The authors also like this approach.

1001.21 – One-time expenditures should be included in the reserve study if applicable. Non-recurring expenditures may be projected to correct construction or repair of components that otherwise may not require replacement. Such expenditures should be included in inflation and percent funded calculations if percent funded calculations are made. However, please see chapter 8 for discussion of percent funded. Calculating percent funded including one time expenditures will require inserting assumptions regarding useful life, one of the three criteria required for calculating percent funded.

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10– Reserve Study Software and Calculations

1001.22 - Percent funded calculations are not required. If percent funded calculations are made, they shall be made on the inflation-adjusted method rather than on the current cost or future cost method. (This topic is so complex and misunderstood that it deserved a chapter all by itself. See Chapter 8 for a full discussion of percent funded.)

1001.23 – The funding calculation method is the most important calculation in the reserve study, as the calculation methods selected for the reserve study apply another layer of possible differences in results of a reserve study. There are two primary methods of calculating reserves: the component method and the cash flow method. (These methods are discussed in detail, with examples of calculations, in Chapter 7.)

1001.24 – The component method, as its name implies, makes a separate calculation for each component included in the reserve study, then totals the results to determine a funding plan. The basic calculation consists of determining the repair or replacement cost, subtracting from that the amount of reserve cash on hand that is allocated to this component, then dividing that remaining “unfunded amount” by the remaining life. The result is an annual reserve contribution for that specific component. By definition, the component method has a goal of 100% funding. We cannot recommend use of the component method as, depending on the allocation of available reserve cash between components, each different allocation will result in different reserve contribution requirements.

1001.25 – The cash flow method is at once more complex, yet the simpler of the methods. It is more complex because the calculations occur at a macro level, for all components combined. But the cash flow method is simplicity itself when viewed as a concept: schedule the cash expenditures over time, consider total reserve cash and other financial resources on hand (or projected, and no allocation required) at the effective date of the study, and build a future cash flow income stream adequate to support that level of expenditures. No specific funding goal is inherent in the cash flow method. We recommend using only the cash flow method, and we find that lenders focus on cash flow, not percent funded.

1001.26 – Our admitted bias regarding funding methods, in recommending solely the cash flow method, is grounded in good reason. As explained and demonstrated by example, the component method is subject to manipulation based on assumptions made; as a result, we believe the component method should not be used under any circumstances, unless required by statute.

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10– Reserve Study Software and Calculations

Appendix 10.1 – ICBI Calculation Principles

10.1.1 - ICBI Calculation Principles

- 1. Replacement cost** – Replacement cost shall include the entire acquisition and installation cost of the repair or replacement component.
- 2. Inflation** - Projected future component expenditures should include a factor for inflation/deflation.
- 3. One-time expenditures** – One-time expenditures should be included in the reserve study if applicable.
- 4. Percent funded** – Percent funded calculations are not required. If percent funded calculations are made, they shall be made on the inflation-adjusted method rather than on the current cost or future cost method.
- 5. Funding Calculation Method** – Funding for future expenditures shall be calculated using the cash flow method, not the component method. The component method should only be used for regulatory disclosure purposes if required by statute, not for budgetary funding plan purposes.

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10– Reserve Study Software and Calculations

Appendix 10.1 – ICBI Calculation Principles

10.1.2 - ICBI Interpretations of Calculation Principles

3-1.1 – Replacement Cost – Replacement cost shall include the purchase cost of the repair or replacement component, including all costs to place the component into service, including shipping or delivery costs, sales tax, installation cost, cost to remove the component being replaced, and any design or other costs associated with the acquisition and installation of the new component.

Some organizations may use their own maintenance staff for both operating and reserve projects. In such cases, the organization should attempt to allocate costs of staff time for reserve projects to the reserve fund. This should include direct labor amounts plus reasonable overhead allocations.

3-2.1 – Inflation – Projected future component expenditures should include a factor for inflation/deflation for the 30-year projection period, or the report shall include a disclosure that inflation/deflation has been omitted. Inflation/deflation rates applied shall be disclosed in the reserve study report. If inflation/deflation is reported differently or omitted for certain time periods, that fact shall be disclosed.

Studies show that inflation has occurred for the last 70 years. Inflation affects future replacement costs and should be included for the entire 30-year projection period, with disclosure of inflation rates assumed. Failure to include inflation may result in establishing an unrealistically low assessment structure resulting in underfunding and the possibility of special assessments.

3-3.1 – One-time expenditures – One-time expenditures should be included in the reserve study if applicable. Non-recurring expenditures may be projected to correct construction or repair of components that otherwise may not require replacement. Such expenditures should be included in inflation and percent funded calculations if percent funded calculations are made.

3-4.1 – Percent funded calculations – Percent funded calculations are not required, but if made, should always be made using the inflation-adjusted method. Current or future cost percent funded calculations create biased results and overfunding or underfunding as compared to the inflation-adjusted method. Current or future cost methods should be used only where required by regulatory reports, and should never be used to replace a funding plan used for budgetary purposes.

The current cost method uses current cost at the start date of the funding plan as the denominator in the percent funded calculation, and consequently cannot be projected to future periods with meaningful results. The current cost method, when projected to future periods, always overstates the percent funded.

The future cost method uses the future cost at the next replacement date as the denominator in the percent funded calculation, and results in understating percent funded for all dates other than the date a component is replaced.

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10– Reserve Study Software and Calculations

Appendix 10.1 – ICBI Calculation Principles

10.1.2 - ICBI Interpretations of Calculation Principles

The inflation-adjusted method adjusts the replacement cost used as the denominator in the percent funded calculation annually so that it more accurately reflects cost each year a percent funded calculation is made.

3-5.1 – Cash flow funding method – The cash flow method shall be used for all budgetary reserve study calculations where more than one component exists. The cash flow method calculates funding based on the aggregation of all components’ projected future expenditures. The cash flow method does not contemplate any specific funding goal.

3-5.2 – Component funding method – The component method should never be used for calculating reserve study funding for budgetary purposes, as it requires assumptions that can be used to manipulate the funding plan, whether purposely or inadvertently. It also requires re-assessing those assumptions annually. The component method should be used only where required for regulatory reporting purposes, and should not replace the cash flow method used for budgetary reporting.

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10– Reserve Study Software and Calculations

Appendix 10.2 – ICBI Software Principles and Standards

10.2.1 - ICBI Software Principles

Software that correctly summarizes the projection to future periods of reserve expenditures and funding is crucial to the accuracy of the reserve study report. Software must have the capability of making the following calculations and reports as described below.

- 1.** General funding plan calculations using the cash flow method and the component method.
- 2.** Component calculations including: (a) inflation/deflation calculations of future expenditures, (b) one-time (non-repeating) expenditures that include inflation/deflation calculations, (c) percent funded calculations under the three methods in current use, and (d) category or other method of summarizing component data into groups for summary reporting.
- 3.** Funding plan calculations including: (a) interest earnings for future periods, (b) income tax calculations, (c) regular periodic reserve assessments, (d) modifications to periodic reserve assessments, (e) special assessments, and (f) loans and loan repayments.
- 4.** Basic financial reports, at a summary level, generally of one or two pages, of: (a) Statement of Current Position, (b) Cash Flow Funding plan in summary format, (c) expenditures for 30-year period in summary format, and (d) component list in summary format.
- 5.** Additional reports consisting of: (a) Preparer's Report, (b) Disclosures, (c) Regulatory Information (FASB [Financial Accounting Standards Board] Disclosures and any formats required by state or other regulatory agencies), (d) RSI (Required Supplementary Information) - component list at detail level, and (e) supplemental reports.
- 6.** Timeshare association component calculation by unit.

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10.2.2 - ICBI Interpretations of Software Principles

6 – Software is the technology tool used to interpret the calculation and reporting standards into information that is understandable. Software is the most critical factor in allowing reserve professionals to comply with Generally Accepted Reserve Study Principles, and therefore software must be capable of making correct calculations in accordance with those standards.

6-1.1 – General Calculations, Cash Flow Method – Generally Accepted Reserve Study Principles recognize only the cash flow method as an acceptable method for making funding calculations. The cash flow method aggregates the cost of projected future expenditures for all components, then calculates a revenue “cash flow” to provide sufficient funding to pay the projected expenditures. The cash flow method does not contemplate a funding goal, but is simply a method of calculating funding. Reserve study software must have the capability of making funding calculations on the cash flow method.

6-1.2 – General Calculations, Component Method – The component method, sometimes referred to as the straight line method, calculates future funding requirements at the individual component level. The component method requires an allocation of cash/investments on hand at the time the calculation is made to all components included in the reserve study. Depending on how the cash/investments amounts are allocated, it can result in significant variations in future funding requirements. Because this method is subject to manipulation, it is not considered a reliable method and should not be used for budgetary calculations.

Certain states require component method calculations for regulatory purposes. Reserve study software must therefore have the capability of making funding calculations on the component method.

6-2.1 – Component Calculations – Reserve study software must be capable of correctly making all required component calculations:

- a. Inflation/deflation calculations
- b. One-time expenditures
- c. Percent funded calculations at current cost, future cost, and inflation-adjusted cost methods. Budgetary calculations should be made using only the inflation-adjusted cost method. However, software must also be able to calculate both the current and future cost methods, which are required in certain regulatory settings.
- d. Software must have capability of summarizing component data, either by category or another method, to produce summary-level reports.

6-3.1 - Funding Plan Calculations – Reserve study software must be capable of correctly making all required funding plan calculations:

- a. Interest earnings calculations
- b. Income tax calculations on investment earnings
- c. Reserve assessments

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- d. Ability to modify reserve assessments annually
- e. Special assessments
- f. Loans and loan repayments

6-4.1 – Summary-level financial reports - Reserve study software must be capable of producing summary-level financial reports. Summary-level reports should generally be one or two-page reports only. If the organization has a relatively small component list and detail reports can be presented in a one or two-page format, then it is acceptable to insert detail reports in place of summary reports.

- a. Statement of current position
- b. 30-year cash flow funding schedule
- c. 30-year expenditure summary
- d. Summary component list

6-5.1 – Additional reports – Additional required reports that software must be capable of producing are:

- a. Regulatory reports consisting of FASB (Financial Accounting Standards Board) disclosures for community associations located in the USA, and state-required disclosures for all states in which software is used.
- b. RSI (Required Supplementary Information) – Component list at a detail level.
- c. Supplemental reports may consist of any other financial exhibits that the reserve professional wishes to add to his or her report. Supplemental reports may contain any additional information desired by the preparer, but such reports may not contradict the summary-level, basic financial reports.

The narrative preparer's report and disclosures may be produced in other software such as Microsoft Word, and collated into a final report that includes the financial reports described above.

6-6.1 – Timeshare software requirements – Because of the unique requirements of timeshare associations, software for timeshare or other fractional associations must be capable of compiling component data by unit for all unit, versus common area, components.

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Appendix 10.2 – ICBI Software Principles and Standards

10.2.3 - ICBI Software Standards

ICBI software certification requirements

- 1 - Software must be capable of making correct calculations of future costs and expenditures, including inflation/deflation and one-time (non-repeating) expenditures, and future funding amounts including special assessments, interest earned, and income tax calculations in conformance with Generally Accepted Reserve Study Principles.
- 2 - Software must be capable of performing the three different methods of calculating percent funded in conformance with Generally Accepted Reserve Study Principles.
- 3 - Software must be capable of producing all reports required by Generally Accepted Reserve Study Principles in an appropriate format.
- 4 – Software meeting timeshare certification requirements must be capable of tracking interior unit component inventory by unit in addition to tracking non-unit common area components.

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1100 – Introduction

1100.1 – This chapter examines the necessity and importance of investing reserve funds. The accumulation of monies for future reserve expenditures represents the largest liquid asset of most associations. The board of directors has a fiduciary obligation to protect, maintain and enhance all Association assets, and under the “prudent person” rules applicable in most states, also the requirement to invest these funds safely and properly. This encompasses hiring professional advisors, investing in appropriate investment vehicles, avoiding many different types of risk, and ensuring availability of funds when needed. With the dramatic changes in the global economic environment over the past few years, this has become even more challenging for most board members and associations to undertake on their own.

1100.2 – Volunteer board members generally do not have the experience or knowledge to safely invest such large sums of money. With the numerous changes in State laws and association governing documents over the past 10 years, some of these often limit the types of investments that can be made. Further, because reserve expenditures are generally spread over long periods of time, longer term investments are often made to increase yield. Yet, board members often serve for only one or two year terms, and they may be making decisions that affect future board members. It is for these reasons that it is a good decision to employ an outside, independent investment advisor, preferably with a specialty in Association finance to help guide the board on investment decisions, timing and various risk factors.

1100.3 - The investing of reserve funds is one of the disconnect points in the reserve study process that continually causes problems. The reason is that an independent, outside reserve practitioner; Association staff; or board members usually establish the funding plan. The usual follow up is that the board looks to the manager, goes to a local bank and rolls over CDs every few months. This leads to various problems with FDIC insurance coverages, who is the

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responsible party and where are all the controls. When the board and manager decide to hire a professional investment advisor, they are usually brought in after the fact to actually invest the funds. The investment advisor, the individual that the Association will hold responsible for managing reserve investments, had no part in creating the funding plan. This is a clear disconnect in the process. When the investment advisor is involved at the onset, they can provide input to the individuals preparing the reserve funding plan during the process, if this does not occur, it is highly unlikely that the actual investment strategy will resemble the reserve study funding plan.

1100.4 – Before actually making any investments, the Association should take the following actions:

- Review state statutes related to reserve investments, management of and transfer of funds.
- Review Association governing documents related to reserve and operating funds.
- Consult with an investment advisor familiar with the HOA industry.
- Determine what short, intermediate and long term investment goals are and if the investment advisor can help establish "acceptable investment guidelines" for the association
- Consult Association legal counsel regarding type of acceptable investments.
- Establish a formal investment policy.
- Establish accounting controls to protect investment funds.

1100.5 – State statutes may exist regarding the investment of and handling of reserve funds. The Association should review state statutes to see if there are any limitations or guidance affecting investing of reserve funds. The authors recommend that board members seek advice of legal counsel and an investment advisor experienced managing association reserve funds on this matter.

1100.6 – Association governing documents may also contain limitations on investment of Association funds. While many association governing documents are silent with respect to investment of association funds, the authors have observed documents that contain generic language such as “appropriate” investments. Others restrict investments to “FDIC Insured” investment vehicles, and some allow “U.S. Treasuries,” and others allow “Securities backed by the U.S. Government.”

1100.7 – Investment advisors experienced in the community association industry not only have expertise in investment vehicles, but also are generally knowledgeable about state statutes, governing documents limitations, and are familiar with reserve studies and the needs for future funding of capital expenditures. Investment advisors that are not knowledgeable about the industry, state laws and other association related scenarios may not be able to offer the same advice and level of service.

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1100.8 – The Association’s legal counsel will generally be familiar with state law and Association governing documents, and can provide any legal interpretations necessary.

1100.9 – Creating an investment policy is one of the best ways to insure that investments are handled appropriately, and saves board members and management professionals who are not licensed or trained in the investment industry and are not familiar with the process from making errors in judgment, timing or other related problems.

1100.10 – Accounting controls over reserve funds help to protect association funds and may help prevent errors. Some controls may be codified in state law. Example, California civil code section 5510 requires two signatures for withdrawal of reserve funds and in certain cases, specifies limitations on the nature of expenditures. In addition, having more than one individual board member, manager or management representative involved in this oversight may help alleviate potential fraud, embezzlement or theft of funds from the association.

1101 – Investment Policy

1101.1 - Establishing a formal written investment policy forces the Association to think through this entire process in advance so that investments represent a well formulated plan rather than a reaction. An investment policy should normally include the following topics:

- Authorized investments
- Goals of the investment policy
- Types of acceptable investments
- Review and control mechanisms

See Appendix 11.1 for an example of an investment policy. Please note that this is an example only, and should be considered as nothing more than a starting point for the Association to begin designing its own investment policy. The Association should generally seek advice from legal counsel, the Association’s investment advisor, and CPA in drafting any policy. Once established, this policy should be reviewed on at least an annual basis, since the financial environment changes frequently and may impact future earnings or safety of funds. (i.e recent changes to FDIC insurance coverages increasing from \$100,000 to \$250,000)

1101.2 – Investment only in authorized investment vehicles – State statutes or governing documents may impose limitations on the types of investments that are considered

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acceptable. The Association should also establish specific internal policies to further define the types of investments that it will authorize as suitable investments. Authorized investment vehicles addresses only broad types of investment categories, not specific investments.

1101.3 – Goals of the investment policy – The goals of the investment policy are typically:

- Preserving the reserve fund balance
- Establishing maturity dates that assure liquidity when needed
- Minimizing risk and yield volatility
- Investment yield that should exceed inflation
- Determining the individual board members and/or managing agents role in the investment process

1101.4 - Types of acceptable investments – The policy should address allocation of funds between cash and cash equivalents, short term and long term investments, fixed income versus variable yield investments, debt versus equity securities. With the term "equity securities" please be advised that direct investment in stocks or equities may be considered risky in most "prudent person" rulings, however there are various ways to invest in equities with no risk to the principal value.

1101.5 - Review and control – The policy should provide guidance on when and how often directors should meet to review and evaluate investments. This should typically be performed on a quarterly basis, or at least annually. That is usually sufficient to consider changes in investment strategy.

1102 – Investment Considerations

1102.1 - Preserving the reserve fund balance - Safety of principal should always be the primary consideration of any Association investment process. Remember that the governing board has a fiduciary responsibility to the Association and its members to always act in the best interest of the Association. Most states have a prudent businessman rule with respect to board decisions. The noted cowboy philosopher Will Rodgers said it best in the 1930's during the Great Depression. He said "Today, the return OF my money is more important to me than the return ON my money"

1102.2 - Liquidity is a secondary consideration for Association reserve investments. It is very important to make sure that liquid funds are available when needed for making necessary

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repairs, replacements or refurbishments. A professional investment advisor can provide guidance and should be able to implement a "process driven" approach on this critical issue.

1102.3 - Laddering of investments is one concept applied by some investment advisors to assure liquidity. There are positives and negatives with utilizing this concept whereby various fixed income investments, such as certificates of deposit, are purchased in such a way that they have staggered maturity dates and will mature in successive months or years. While they may be rolled over and reinvested if funds are not needed, this ensures that at least some portion of the invested reserve funds are maturing every year. While good for liquidity, the past 10 years have shown us that ladders can also be dangerous with rates declining to 0% and the laddering concept providing earnings well below levels of inflation.

1102.4 - Yield is the return on investment monies. While many people tend to focus on this aspect, it is actually the least important of the three criteria with respect to the investment of Association reserve funds. A good yield on investments obviously helps to reduce reserve fund assessments, but incurring a higher risk to achieve a higher yield violates rule number one – Guaranteed protection of the principle.

1102.5 – Some identifiable risks for investing reserves are:

- Credit risk
- Market risk
- Inflation risk
- Liquidity risk
- Interest rate risk

And others include

- Headline risk
- Geopolitical risk
- Acts of God

1102.6 – Credit risk – Wikipedia defines as follows (modified for community association industry) – “A **credit risk** is the risk of default on a debt that may arise from a borrower failing to make required payments. In the first resort, the risk is that of the lender and includes lost principal and interest, disruption to cash flows, and increased collection costs. The loss may be complete or partial and can arise in a number of circumstances, for example:

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- A borrower may fail to make a payment due on a loan.
- A company is unable to repay asset-secured fixed or floating charge debt.
- A business or government bond issuer does not make a payment on a coupon or principal payment when due.
- An insolvent insurance company does not pay a policy obligation.
- An insolvent bank won't return funds to a depositor.”

While many of these factors may be mitigated by limiting the amount in any one FDIC insured institution to a maximum of \$245,000 (so that the principal AND interest are insured) the subsequent credit risks mentioned are still a major concern when investing in other types of fixed income or debt types of investment vehicles.

1102.7 – Market risk – Wikipedia defines as “**Market risk** is the risk of losses in positions arising from movements in market prices.” In the community association industry, this often occurs from selling investments prior to their maturity date. Market risk can be reduced by holding the investment until maturity or purchasing investments that do not fluctuate in value unless sold prior to maturity.

1102.8 – Inflation risk is the possibility that the cost of repairs or replacements will increase faster than the earnings on investments. While the past few years have had relatively low inflation rates, all one needs to do is look back to the late 1970's and early 1980's to see where inflation rates exceeded 20%. All things in life, finance and the universe are cyclical.

1102.9 – Liquidity risk is the possibility that the Association will not be able to convert investments to cash when needed to make major repairs or replacements. This could be due to extended maturity dates or to a general illiquidity in the market for the specific investments held.

1102.10 – Interest Rate risk is defined in Wikipedia as “**Interest rate risk** is the risk that arises for bond (or certificate of deposit) owners from fluctuating interest rates. How much interest rate risk a bond (or certificate of deposit) has depends on how sensitive its price is to interest rate changes in the market. The sensitivity depends on two things, the bond's time to maturity, and the coupon rate of the bond.” This author has taken on an "interest rate neutral" approach over the past 35 years, since it is difficult to predict precise interest rate changes or presage the next moves by the Federal Reserve Board.

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1103 – Types of Investments

1103.1 – Investments suitable for a community association's reserve funds include:

- FDIC-insured certificates of deposit (CDs)
- FDIC-insured Money Market Funds (MMF)
- U.S. treasuries
- Money Market Funds (MMF) – in some instances, even though the "fund" may not be insured

1103.2 – While there are many new investments available today, many of these are generally considered to not be suitable for associations regardless of the decisions by individual board members, these include individual stocks, equity based mutual funds, hedge funds, derivatives, commodities, futures, or options. There are many other vehicles that fit this same unsuitably framework and you should consult a professional financial advisor prior to any investment decisions to assure safety, security and liquidity.

1104 – The Investment Advisor

1104.1 - Deciding who to use as an investment advisor is critical and is one of the very first steps that should be taken, since that person or preferably team, will be able to help in the development of a formal investment policy, oversight, advice and long term investment strategy. Many banks, brokers, and investment advisors claim to be able to assist Associations in this process, however each one may offer different approaches not necessarily aligned with the long term benefits required by the association. Be certain to work with individuals who have long term track records in the association industry, check with their existing clientele, other trusted advisors, attorneys and CPAs to find the best fit for your association.

1104.2 - Ask about fees, costs and penalties and how the advisor gets paid. Inquire as to various ways to reduce the cost of investing while benefitting the overall position of your association. Finally, ask for references! Investigate before you invest.

"This chapter was reviewed and approved for compliance and regulatory purposes WFA 0815-01729"

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Appendix 11.1

XYZ Association Investment Policy

- I. **INVESTMENT POLICY** - The Association's directors recognize their fiduciary responsibility to manage the reserve assets in a prudent manner. Accordingly, the directors have set forth an investment strategy, security selection criteria, and control and review procedures to pursue the stated objectives and goals. The policy is based on the historical rates for bonds, money market instruments, and inflation. The directors expect that over longer periods of time, the strategy will produce results consistent with history and therefore meet the reserve fund's specific goals.
- II. **GOALS & OBJECTIVES** - The Association's capital replacement reserve assets shall be invested in an effort to achieve the following prioritized objectives:
- FIRST:** Promote and assure the preservation of the reserve fund's principal.
- SECOND:** Structure maturities to assure availability of assets for that time when reserve analyses anticipate needs.
- THIRD:** Mitigate the effects of interest rate volatility upon reserve assets.
- FOURTH:** Achieve long-term investment performance that exceeds inflation by 1-3% on a net after-tax basis.
- III. **INVESTMENT STRATEGY** - Select individual securities that have effective maturities of 1 to 3 years. Structure these maturities so that an approximately equal proportion come due each year. With new or matured funds, consistently purchase securities at the long end of the maturity range. Variations may alter the longest maturity and/or number and length of periods.

The expectation of this "laddering" strategy is that the reserve assets shall benefit from longer-term rates, which are commonly higher than short-term rates, while maintaining ready availability of funds and cash flow. It is further expected that this strategy shall track the middle range of interest rate fluctuation by lessening the impact of any year's particularly high or low rates.

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Exception to this strategy may be employed if reserving a portion for a specific expense. If that is the case, utilize the most recent reserve funding study to match the effective maturities to the dates of such specific expenses.

It is understood that "effective maturity" may be sooner than "stated maturity."

- IV. **SELECTION CRITERIA** - Securities will be selected with an emphasis upon these characteristics: preservation of capital, quality, effective maturity, and net after-tax return.
- A. **Cash Equivalents** - Money market funds of a bank or major brokerage firm. Bank certificates of deposits. AAA-rated municipal (only if Association believes these are prudent investments), or U.S. Treasury securities with maturities of one year or less.
- B. **Fixed Income** - Utilize taxable income securities for that portion of Association income that may be taxable within the lower brackets. Invest in tax-exempt securities above that level if the after-tax return is favorable.

The taxable portion shall consist of U.S. Treasury securities and insured bank certificates of deposit.

Tax-exempt securities will be rated in the AAA quality level by at least one major credit rating agency at the time of purchase, or be of equivalent quality if non-rated.

For securities that have their credit rating lowered after purchase and securities presently in the portfolio that fall below these criteria, an issue-by-issue review will be conducted. A decision will be made to either hold and monitor, or liquidate.

Beyond quality considerations, selection criteria will emphasize securities' maturities before yields. This is recognized as essential to the governing investment strategy.

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- V. **REVIEW AND CONTROL** - The Association's directors will meet at least quarterly, or more often if deemed necessary, to review the reserves' investment performance. Policy considerations concerning changes of investment strategy or security selection criteria will also require a meeting to gain a consensus.

The performance review will be compared to the goals and objectives of the reserve fund. The directors recognize the price volatility of fixed income investments and note the strategy to hold such securities to their fixed value at maturity.

Monthly statements of the Association's reserve investments will be delivered to the manager. These will provide detailed accounting of current values, income, and transactions.

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12 – Establishing Reserve Policies

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1200 – Introduction

1200.1 - Reserve policies serve to structure the planning process of a long-term major repair and replacement program. In addition, the adoption of policies can often provide better consistency in the reserve program over a period of years. This is because as board members change, new members may have differing thoughts and may want to either include new components or exclude existing components from a reserve plan. The existence of policies, particularly if supported by the originating board's reasoning, would cause future board members to at least question suggested changes and perhaps slow down the process of making changes in the reserve plan. A well-thought-out plan at the outset increases the possibility that the guidance will endure.

1200.2 – Over the years we've heard many associations or board members say that they think they should put policies in place related to reserves, but they just don't know what they should be. Other say all that is needed is a reserve study, not policies.

1200.3 – The authors' position? We believe the lack of reserve policies creates one of the biggest disconnects in the entire reserve study process. Why do we say this? Because if the association doesn't have reserve policies in place, guess who's making all of its reserve decisions? The reserve practitioner. That's one of the reasons why associations see such widely varying results in reserve studies from year to year. A better position would be for an association to work with its reserve practitioner before the reserve study is done to help establish reasonable reserve policies.

1200.4 – This isn't a matter in which an association can say, "We just hired a reserve study company, so let's make up some policies right now before the practitioner gets here next week." No. While reserve policies are the responsibility of the board of directors, they should

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12 – Establishing Reserve Policies

consult with a reserve practitioner who can assist them in the development of the policies. The reserve practitioner has both expertise and the benefit of experience in working with likely dozens of similar associations, so their guidance in developing policies is invaluable.

1200.5 – Some larger associations may have a finance committee or even a reserves committee that can assist in developing reserve policies.

1200.6 – The concept behind establishing reserve policies is to put the association in charge (rather than the reserve practitioner) and to provide some long-term consistency and stability in reserve planning. A reserve policy should document the association's philosophy on reserves. The fact is that any future board can modify, override, or completely ignore existing reserve policies, but in most associations, they would probably need to justify their actions or else would end up taking a lot of heat from the members of the association.

1200.7 – Addressing statutory issues is necessary in any jurisdiction that has reserve requirements. (See chapter 16 for state requirements.) However, statutory requirements are intended to be minimum requirements, and are developed as a consumer protection vehicle as opposed to representing actual guidelines for a good reserve management plan. Our advice to associations is to create reserve policies that represent a good reserve management plan for the association, and make sure it also meets statutory requirements.

1200.8 – Associations should also consider regulatory requirements of governmental agencies such as the Federal Housing Administration (FHA). One problem with the FHA reserve study guidelines, however, is that they were watered down due to political pressures, so they literally will not make sense for some associations. But admittedly, there should be very few associations for whom the FHA rules simply don't work.

1200.9 – Besides statutory issues, reserve policies should address broad guidelines as to the components to be included in the study, components to be excluded from the study, materiality limits on items to be included in reserves, and maintenance standards or goals related to the physical aspects of reserves. Guidelines as to funding goals, regular and special assessments, use of loans, inflation and interest assumptions, and calculation issues should also be addressed in relation to the financial aspect of reserves. Another issue that may be addressed in reserve

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12 – Establishing Reserve Policies

policies is cash handling procedures, which would include financial accounts to be maintained, who may authorize expenditures, the frequency of transfers from operating cash to reserve cash, restrictions on transfers of reserve cash to operations, and preferences on income tax filing status.

1200.10 – Recognize that the reserve policy should not stand alone. It should be part of an overall operating framework of the association that includes the maintenance plan, the investment policy, the capitalization policy, and the conflict of interest policy. Every association is unique, so while these plans and policies will have similarities, they will also have differences.

1200.11 – At a more detailed level, reserve policies may discuss specific components and issues related to those components. As stated above, each association is unique, and that also relates to components' cost and useful life.

1200.12 – **Cost factors.** Cost factors must be considered. Costs vary by region. For example, when we're working with associations in Hawaii or the Caribbean, we know we will need to add about 30% to mainland costs. This is necessary because of the cost of transporting building materials, equipment, and furniture to these locations. There is also the added cost of disposing of worn-out components, since islanders don't normally have the option of sending items to a landfill. We often encounter the same issue of added costs in Mexico. Many times, material is transported in from the USA and is installed by U.S. work crews, making costs in Mexico much higher than on mainland USA.

1200.13 – Another cost factor that can vary significantly is related to how components are replaced. Are painting, roofing, and other construction-related costs performed by in-house maintenance staff, or contracted out to licensed contractors? If performed in-house, are labor costs allocated from operating to reserve budget based on actual time cards? Does the allocation of labor include the payroll-related overhead costs of payroll taxes, employee benefits, and workers compensation and health insurance? We have seen every variation of these answers imaginable. These decisions are policy issues that have a significant impact on reserve expenditures and reserve funding. Documenting these decisions in a policy provides a guideline for establishing realistic replacement costs.

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12 – Establishing Reserve Policies

1201 - Developing Reserve Policies

1201.1 – The following topics are generally considered to be part of a comprehensive reserve policy:

- Basic philosophy underlying reserves - ICBI standards
- External considerations - Statutory and regulatory requirements
- Components - Included
 - Excluded
 - Scope – materiality
 - Maintenance standards
- Funding plan - Goals
 - Methods / calculations
 - Interest and inflation assumptions
 - Regular and Special Assessments
- Reserve fund cash management
 - Budget
 - Financial accounts
 - Assessment transfers
 - Authorization for expenditures
 - No transfers to operating fund
 - Investment policy
- Capitalization policy
- Income tax considerations

1201.2 – Smaller or less complex associations may not see the need for extensive policies. While those associations should still consider the above listed topics, the actual policy may be limited. See appendix for “Short Form” version of reserve policies as an example.

1201.3 - Larger or more complex associations will usually require a more robust discussion of the topics listed above, and the resulting reserve policy may be a much larger document. See appendix for “Long Form” version of reserve policies as an example.

1201.4 – These model reserve study policy documents are provided courtesy of Facilities Advisors, Inc. Readers may visit the following site to download a MS Word version of these documents:
<http://www.reservestudyusa.com/downloads>

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ABC Association

Model Reserve Policy

(Short Form)

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Introduction

The Association is charged with the responsibility to maintain, repair and replace certain common area facilities, furniture and equipment. The Declaration sets forth the Association's minimum legal requirement for maintenance of common areas. The Association may also maintain common components not identified in the declaration, as well as personal property.

The purpose of the reserve fund is to provide sufficient monies for major repair and replacement of common area components when necessary to maintain those components. The primary goals of the reserve fund are to preserve members' property values and to effect major repairs and replacements at the lowest efficient cost.

Reserve Study Philosophy - ICBI standards

Maintenance Plan - The Association has adopted a long term maintenance plan for repair and replacement of major components, which serves as the basis for the reserve study. The reserve

study is the long term budget that provides the funding to pay for future major repair and replacement expenditures.

Reserve Study Standards - The Association complies with Generally Accepted Reserve Study Principals as adopted by the International Capital Budgeting Institute (ICBI) and requires that reserve study reports shall be prepared in accordance with ICBI Generally Accepted Reserve Study Standards. These are the highest standards for reserve studies and coincide with the Association's desired conceptual framework.

External considerations

Statutory requirements - There are no specific requirements in the state in which the Association is located that require preparation of a reserve study. (Or, Statutory reserve study requirements exist for California, Delaware, Florida, Nevada, Utah, and Washington associations. Insert appropriate statutory requirements for those states.)

Regulatory requirements - FHA requires specific annual funding for reserves for associations desiring to qualify under FHA regulations. The Financial Accounting Standards Board (FASB) requires disclosures of reserve study information to accompany audited, reviewed, or compiled financial statements. The Association's reserve maintenance plan includes compliance with FHA funding requirements and FASB disclosure requirements.

Reserve Study Plan and Procedures

Overview - The Association's reserve study shall be conducted as a reserve management plan as defined by ICBI, and not as an independent reserve study. Outside consultants retained shall provide advice and prepare reports in accordance with, and perform their studies in accordance with ICBI Generally Accepted Reserve Study Standards.

An independent, on-site analysis shall be performed by an outside consultant no less than every three years. For any year in which an on-site analysis is not performed, an updated reserve study report shall be prepared without an on-site analysis. The updated report shall be prepared using the Facilities 7 internet-based, ICBI certified, reserve study software licensed by the Association.

Site Analysis Guidelines - Every three years an on-site analysis shall be performed by an outside consultant in accordance with ICBI Generally Accepted Reserve Study Standards. The reserve study engagement shall be a reserve management plan service level as defined by ICBI standards as a Type 1 engagement. The standard of care for the on-site analysis shall that of a reasonably competent and diligent visual observation, performed by a qualified, experienced, outside consultant holding a designation as a PRC, RS, or PRA.

Annual Updates without a Site Analysis - On intervening, or non-site analysis years, the Association shall perform an annual update of the reserve study report without a site analysis. This report may be prepared by Association staff or management, or by an outside consultant.

Components

The Association, in consultation with the independent, outside reserve consultant, shall determine what components shall be included from the reserve study, and those components that shall be excluded. The Association shall also determine the scope, or materiality level at which components shall be included in the reserve study, and the maintenance standards which shall be applied. Identification of components shall be in accordance with ICBI Generally Accepted Reserve Study Principals.

The reserve study shall include all components identified in the governing documents or that are required by state statutes. The reserve study shall include all components for which the Association has determined it has maintenance responsibility that have an estimated replacement cost in excess of \$1,000 (set scope / materiality accordingly) individually or in the aggregate, except for those exclusions identified below. In addition, the Association may include allowances for estimated significant, future, non-annual maintenance expenditures where neither exact costs nor exact time periods can be determined. Components for which the Association has maintenance responsibility that are excluded from the reserve study are:

- Building structural components
- In wall, under slab, and underground utilities
- Road base
- Hardscape such as sidewalks and concrete gutters
- Storm drainage systems

Funding Plan

Funding Goals – The Association has set a desired goal of reaching, and remaining at, or near, 100% funded. This matches reserve contributions to the estimated deterioration of the physical common area components.

Reserve Calculation Methods – The Association shall comply with the ICBI Generally Accepted Reserve Study Standards and use the cash flow method of calculating reserve funding. If percent funded calculations are made, they shall be made using the inflation adjusted method.

Interest and inflation assumptions – The future inflation shall be estimated and used in the calculation of future reserve expenditures. Interest income shall be estimated and assumed to be retained in the reserve fund. Income taxes shall be paid from the operating fund. (Alternate position – Interest income earned by accumulated reserve funds shall be transferred to the operating fund. As a result of this decision, reserve contributions will be increased by the amount of estimated interest earnings, and operating assessments will be decreased by the same amount.)

Regular and Special Assessments – Every effort shall be made to avoid special assessments by establishing adequate regular assessments to achieve the desired 100% funding level.

Reporting on Reserves

Reserve study reports shall be prepared in accordance with ICBI Generally Accepted Reserve Study Standards. The Association will also require supplemental exhibits that report:

- Expenditures by year
- Expenditures by component for future years within the funding plan period (30 years)
- Component full detail report with photos
- Components by location
- Components by unit (timeshare only)

Reserve Fund Cash Management

Budget - As the elected body of the Association, the Board of Directors is responsible for ensuring its sound management and operation. The annual budget process must address two areas: Operating Funds and Reserve Funds, and may address a third area, Capital Improvements.

Financial accounts – The Association maintains separate bank and investment accounts for the accumulation of reserve funds.

Assessment transfers – Member assessments consist of two components; the operating assessment, and the reserve assessments. These are received as a single payment form each member, and are deposited into the operating bank account. A transfer of the reserve portion of assessments is made monthly by the 15th of each month to the reserve checking account.

Authorization for expenditures – Since reserve expenditures are usually irregular in timing and of significant amount, it is Association policy that expenditures from the reserve fund must be authorized by two board members, or one board member and an officer who is not a board member. Expenditures shall be for components that have been included in the reserve study

No transfers to operating fund – Reserve funds are designated by the Board of Directors for future major repairs and replacement only. No transfers shall be made to the operating fund other than for reimbursement of reserve expenditures that were disbursed from the operating account. An exception is that loans may be made from the reserve fund to the operating fund only if there is an established repayment plan that repays the loan within twelve months.

Investment policy – The Association has adopted an investment policy, and all investment of reserve funds shall be made in accordance with that policy.

Capitalization Policy

The Association has adopted a capitalization policy that coordinates with the reserve component materiality limit established above.

Income Tax Considerations

The Board believes it is generally beneficial to avoid the risk of adverse tax consequences by filing Form 1120-H as a qualifying homeowners association.

ABC Association

Model Reserve Policy

(Long Form)



Provided Courtesy of:
Facilities Advisors, Inc.
www.reservestudyusa.com

ABC Association

Model Reserve Policy

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ABC Association

Model Reserve Policy

Introduction

The Association is charged with the responsibility to maintain, repair and replace certain common area facilities, furniture and equipment. The Declaration of Conditions, Covenants, and Restrictions sets forth the Association's legal requirement for maintenance of certain real property common elements and states that the assessments shall be sufficient to, among other things, establish and maintain adequate repair and replacement reserves. In addition, the Association has determined that it shall maintain certain real property common components not identified in the declaration, as well as personal property common components that are not identified in the Declaration. The personal property common components consist of vehicles, furnishings, and equipment. The Association has established below specific guidelines regarding components. The Board of Directors has determined that all common areas should be maintained in a minimum condition rating of "good" condition.

The purpose of the reserve fund is to provide sufficient monies for major repair and replacement of common area components when necessary to maintain those components in the condition determined above. The primary goals of the reserve fund are to preserve members' property values and to effect major repairs and replacements at the lowest efficient cost.

The purpose of this policy statement is to document the policies and procedures for the orderly repair and replacement of the Association's common area components by developing a sound financial plan to spread major costs over time and avoid special assessments.

Reserve Study Philosophy - ICBI standards

Maintenance Plan - The Association believes that timely maintenance of common area components and not allowing condition to deteriorate below a rating of "good" condition provides for the lowest cost over time. Accordingly, the Association has adopted a long term maintenance plan for repair and replacement of major components. The maintenance plan encompasses both "day-to-day" maintenance activities and long term maintenance activities.

Day-to-day maintenance activities are a crucial part of the maintenance plan, as failure to perform regular maintenance activities can impact both the timing and cost of long term, major repair and replacement projects that are the subject of the reserve maintenance plan.

Delay of long term reserve expenditures for common area maintenance can also result in worse than anticipated deterioration of components that results in higher long term maintenance costs. Of particular concern are those components such as roofing, siding, windows, and doors that, if not properly installed and maintained, could allow water intrusion that would result in structural of interior damage that would otherwise not exist.

The maintenance plan serves as the basis for the reserve study, which is the financial reflection of the physical maintenance plan. The reserve study is the long term budget that provides the funding to pay for future major repair and replacement expenditures.

Reserve Study Standards - The Association has determined that its reserve maintenance plan will comply with Generally Accepted Reserve Study Principals as adopted by the International Capital Budgeting Institute (ICBI). These are the highest standards for reserve studies and reflect the conceptual framework and philosophy under which the Association operates. Reserve study engagements shall be performed, and reserve study reports prepared, in accordance with ICBI Generally Accepted Reserve Study Standards.

External considerations

Statutory requirements - There are no specific requirements in the state in which the Association is located that require preparation of a reserve study.

Statutory reserve study requirements exist for California, Delaware, Florida, Nevada, Utah, and Washington associations. Insert appropriate statutory requirements for those states.

Regulatory requirements - FHA requires specific annual funding for reserves for associations desiring to qualify under FHA regulations. The Financial Accounting Standards Board (FASB) requires disclosures of reserve study information to accompany audited, reviewed, or compiled financial statements. The Association's reserve maintenance plan includes compliance with FHA funding requirements and FASB disclosure requirements.

Reserve Study Plan and Procedures

Overview - The Association's reserve study shall be conducted as a reserve management plan as defined by ICBI, and not as an independent reserve study. Association staff will set the scope of the reserve study and outside consultants retained shall provide advice and prepare reports in accordance with ICBI Generally Accepted Reserve Study Standards. Reserve studies performed by outside consultants shall be performed in accordance with ICBI Generally Accepted Reserve Study Standards.

Since the Association is more than 10 years old, an independent, on-site analysis shall be performed by an outside consultant no less than every three years. For any year in which an on-site analysis is not performed, an updated reserve study report shall be prepared without an on-site analysis. This report may be prepared by Association staff or management, or by an outside consultant. In either case, the updated report shall be prepared using ICBI certified software licensed by the Association.

Reserve transactions occur on a regular basis for contributions to reserves, and on an irregular basis for reserve expenditures. It is the Association's policy to update the reserve transactions to their licensed software on at least an annual basis. This provides the Association with accurate, up-to-date reserve information. The Association shall update component cost information as it becomes aware of any significant changes in cost.

Site Analysis Guidelines - At least once every three years, a formal reserve study report shall be prepared that is based upon an on-site analysis performed by an outside consultant. The reserve study services and reserve study report shall be performed and prepared in accordance with ICBI Generally Accepted Reserve Study Standards. The reserve study engagement shall be a reserve management plan service level as defined by ICBI standards. The first such study performed by a reserve study company shall be performed as a Type 1 engagement. Subsequent on site

engagements performed by the same company may be performed as a Type 2 engagements. If a different reserve study company is engaged for any subsequent on site analysis engagement, that engagement shall be performed as a Type 1 engagement.

The standard of care for the on-site analysis shall that of a reasonably competent and diligent visual observation, performed by a qualified, experienced, outside consultant holding a designation as a PRC, RS, or PRA. The Association recognizes that, while certain Association members may be technically qualified to perform the site analysis, they may lack the time, software, experience, or resources relating to determining future cost, to adequately complete the study. Further, reliance on volunteer members may actually hinder the transference of information accumulated in the reserve study process. Accordingly, the Board of Directors believes that it is more prudent to rely upon an outside, independent consultant that has experience in performing reserve studies.

Annual Updates without a Site Analysis - On intervening, or non-site analysis years, the Association shall perform an annual update of the reserve study report without a site analysis. This report may be prepared by Association staff or management, or by an outside consultant. In either case, the updated report shall be prepared using ICBI certified software licensed by the Association.

In conducting the Association's annual update for non-site analysis years, the Board should avoid making any changes in methodology, or in classes or categories of components included or excluded from the reserve study. Changes should generally be limited to recognizing events that have occurred since the last study, such as:

- (a) Components which have been replaced (delete old, add new);
- (b) Additions of new items to a class of components already included;
- (c) Changes to interest and/or inflation rates are clearly inappropriate without professional advice;
- (d) Changes in conditions that would affect the useful life of a component.

It is not considered necessary to re-challenge future replacement costs for all components during an annual update. The report shall be issued in accordance with ICBI Generally Accepted Reserve Study Standards.

Components

The Association, in consultation with the independent, outside reserve consultant, shall determine what components shall be included from the reserve study, and those components that shall be excluded. The Association shall also determine the scope, or materiality level at which components shall be included in the reserve study, and the maintenance standards which shall be applied. As such, this policy provides a consistent method and criteria for determining the Association's components that are required to be included in the study of reserve account requirements and a method of funding for these components. Identification of components shall be in accordance with ICBI Generally Accepted Reserve Study Principals.

The reserve study shall include all components identified in the governing documents or that are required by state statutes. The reserve study shall include all components for which the Association has determined it has maintenance responsibility that have an estimated replacement cost in excess of \$1,000 (set scope / materiality accordingly) individually or in the aggregate, except for those exclusions identified below. In addition, the Association has determined that the

reserve fund shall include allowances for estimated significant, future, non-annual maintenance expenditures where neither exact costs nor exact time periods can be determined. These are partial major repairs or replacements of such components as landscaping and concrete block walls, which might normally be considered as lifetime components.

Components for which the Association has maintenance responsibility that are excluded from the reserve study as being considered lifetime components or by board decision are:

- Building structural components
- In wall, under slab, and underground utilities
- Road base
- Hardscape such as sidewalks and concrete gutters
- Storm drainage systems

Funding Plan

Funding Goals – The Association has set a desired goal of reaching, and remaining at, or near, 100% funded. While the Board of Directors realizes this means that significant reserve balances may be held on hand at any given time, priority is given to fairly spreading reserve contributions over both current and future owners. This is achieved by a reserve funding plan that maintains reserve balances at, or near 100% funded, as this matches reserve contributions to the estimated deterioration of the physical common area components.

Reserve Calculation Methods – The Association shall comply with the ICBI Generally Accepted Reserve Study Standards and use the cash flow method of calculating reserve funding. If percent funded calculations are made, they shall be made using the inflation adjusted method.

Interest and inflation assumptions – The future inflation shall be estimated and used in the calculation of future reserve expenditures.

Interest income shall be estimated and assumed to be retained in the reserve fund. Income taxes shall be paid from the operating fund. (Alternate position – Interest income earned by accumulated reserve funds shall be transferred to the operating fund. As a result of this decision, reserve contributions will be increased by the amount of estimated interest earnings, and operating assessments will be decreased by the same amount.)

Regular and Special Assessments – Every effort shall be made to avoid special assessments by establishing adequate regular assessments to achieve the desired 100% funding level. Unanticipated events may occur, in addition to the normal changes in estimates that will occur due to changes in estimated replacement costs or timing of repair or replacement activities. Significant events could lead to special assessments.

The Board's decision to not include in wall, under slab and underground utilities may also lead to a special assessment. These components normally have an estimated life to 40 to 60 years, and could have costs ranging from \$10,000 to \$40,000 per unit. Based upon a member survey, and the fact that these components were not included in the reserve study for the first twenty years of the Association's existence, the members voted overwhelmingly to exclude funding for this component. Funding for the cost of this single component was estimated at \$83 per member, per month, for the next 30 years (\$30,000 per unit with a remaining life of 30 years).

Reporting on Reserves

Reserve study reports shall be prepared in accordance with ICBI Generally Accepted Reserve Study Standards.

The Association will also require supplemental exhibits that report:

- Expenditures by year
- Expenditures by component for future years within the funding plan period (30 years)
- Component full detail report with photos
- Components by location
- Components by unit (timeshare only)

Reserve Fund Cash Management

Budget - As the elected body of the Association, the Board of Directors is responsible for ensuring its sound management and operation. One of the primary duties of the Board of Directors is to review and approve the annual budget. The annual budget process must address two areas: Operating Funds and Reserve Funds, and may address a third area, Capital Improvements/

The purpose of the operating budget is to provide funds for the Association's day-to-day operations, including maintenance of common area facilities. Establishing an ongoing maintenance plan is also an essential part of determining the reserve maintenance plan. For instance, failure to maintain asphalt surfaces with annual crack sealing may result in much faster deterioration of the asphalt surfaces requiring major revisions to the planned reserve activities.

The purpose of the reserve budget is to provide funds for the Association's long-term maintenance of existing Association common areas and facilities. The reserve budget is based upon a long-range forecast for the major repair or replacement of Association common areas. The actual maintenance activities required, and the timing of those activities is dependent on, to a certain extent, the timing and nature of operating maintenance activities performed on a regular basis. It is recognized that the maintenance plan may change over time.

The purpose of the capital improvements budget is to provide funds for new additions to the Association's common areas and facilities. Capital improvements are distinguished from reserves in that capital improvements represent purchase or construction of new components, whereas the reserves budget deals only with existing components.

Financial accounts – The Association maintains separate bank and investment accounts for the accumulation of reserve funds.

Assessment transfers – Member assessments consist of two components; the operating assessment, and the reserve assessments. These are received as a single payment from each member, and are deposited into the operating bank account. A transfer of the reserve portion of assessments is made monthly by the 15th of each month to the reserve checking account.

Authorization for expenditures – Since reserve expenditures are usually irregular in timing and of significant amount, it is Association policy that expenditures from the reserve fund must be authorized by two board members, or one board member and an officer who is not a board member. Expenditures shall be for components that have been included in the reserve study. In the event

that an expenditure is required for an item that was not previously identified as a reserve component, the reserve study should be revised to include the component, and the expenditure made from reserve funds. Withdrawals from the reserve fund may only be used for restoration, repair and replacement of existing capital improvements, not for new Capital Improvements of facilities or additions.

No transfers to operating fund – Reserve funds are designated by the Board of Directors for future major repairs and replacement only. No transfers shall be made to the operating fund other than for reimbursement of reserve expenditures that were disbursed from the operating account. An exception is that temporary loans may be made from the reserve fund to the operating fund only if there is an established repayment plan that repays the loan within twelve months.

Investment policy – The Association has adopted an investment policy, and all investment of reserve funds shall be made in accordance with that policy.

Capitalization Policy

The Association has adopted a capitalization policy that coordinates with the reserve component materiality limit established above.

Income Tax Considerations

The Board believes it is generally beneficial to avoid the risk of adverse tax consequences by filing Form 1120-H as a qualifying homeowners association.

However, the Board also recognizes that under certain circumstances it may be beneficial to file Form 1120 as a nonexempt membership organization. Accordingly, the Association wishes to avoid any adverse federal income tax consequences on reserve assessments set aside and held in reserve for repair and replacement of improvements to the common areas by following the IRS guidance for contributions to the capital of a corporation.

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12 – Establishing Reserve Policies

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1300 - Introduction

1300.1 - Certain types of organizations are so unique that they warrant an expanded discussion. This is simply because their unique operations, requirement for unit interiors maintenance or other issues cause them to be more complex than the far more common smaller associations that make up the large majority of the community association industry. When most people think of homeowners associations, they imagine a condominium or townhouse project of perhaps 100 units, or a planned development of 100 – 200 single family homes.

1300.2 – What most people don't immediately think of is a large master association that may contain thousands of homes, infrastructure rivaling that of a small city, or the complex mechanical systems that are part of every high rise condominium or cooperative development. Timeshare and condo hotels associations have such different operating and business models, that even though physical facilities may appear similar, they consider themselves to be completely separate industries. A number of large scale associations contain golf and tennis operations, but they differ from country clubs that are not part of an association. These organizations often have recreational and significant ancillary operations and or maintenance and operating equipment not encountered in other types of associations.

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1301 - Large Scale Associations

1301.1 – Differences in large scale associations from smaller associations.

- Large associations are far more likely to require a reserve management plan versus a budgetary reserve study, so basic purpose of obtaining a reserve study is different
- The much larger number of components encountered (typically several hundred) in large associations means that the reserve practitioner must have software capable of managing a larger component database. The flat file structure of Excel used by many reserve study companies will often result in the reserve practitioner inappropriately “grouping” and “combining” multiple components trying to keep the component list manageable, or a component list so large it is incomprehensible.
- Reserve practitioners must be familiar with a much larger range of components than those ordinarily encountered in smaller associations.
- Software reporting capability must be sufficient to allow adequate management of the component data. This is normally accomplished with a database design including multiple category and component levels.

1301.2 - Large-scale associations can have numerous types of additional amenities not found on any other type of property. In addition, because of the large budgets normally a part of such associations, we are far more likely to encounter an association management team that has both a need and a desire to actively manage the reserve process. Their budget dollars are just too big to rely on processes traditionally used in the community association industry. This can't be done with a once-every-three-years paper reserve study report. These associations often demand an internet-based software system that allows them to internally maintain the process. A number of these have explained to us that they've tried the Excel type applications on line that some reserve study companies offer, and while perhaps easy to use, provide unsatisfying performance and results.

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1301.3 - Examples of the types of components commonly encountered in large scale associations that are not seen in smaller associations include:

- Golf courses and all related components
- Roads
- Equestrian centers
- Marina and boat operations
- Restaurants and bars
- Campgrounds
- Shooting ranges
- Airports
- Extensive clubhouse buildings
- Extensive fitness centers
- Water parks
- Maintenance structures
- Maintenance equipment
- Rental properties
- Lakes, ponds, and other water features
- Water distribution systems
- Sanitary systems
- Drainage systems

1301.4 - One of the questions that inevitably arises with much of the equipment maintained by large-scale associations is whether or not it must be included in the reserve study. The governing documents of the association will typically have some language that describes maintenance responsibilities of the association. However, this is generally limited to grounds and structures. These common area items represent a contractual obligation on the part of the association for maintenance.

1301.5 - Equipment items generally do not represent a contractual obligation under the associations governing documents. Because an association has the ability to outsource its maintenance activities to a third party contractor and no longer need the maintenance equipment

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often encountered in large-scale associations, some people suggest that these items should not be included in the reserve study. The authors disagree, and believe that association equipment components should be included in the reserve study. However, the authors have worked with associations that choose to separate the reserve study into two separate reports; one for the contractual obligations (grounds and structures), and a second one for equipment.

1301.6 – Many larger associations like the feature of having a location field in the reserve study software so that data can be sorted and reported by location. This is invaluable in helping to identify components where there may be similar components at various locations. It also gives the association the ability to analyze data by location by performing a “virtual walkthrough” of a location to make sure that all component have been considered. When dealing with hundreds of components in multiple locations, this feature is very helpful in evaluating the accuracy and completeness of the component database.

1301.7 – The authors’ experience is also that large scale associations are more likely to approach the entire reserve study process in a businesslike manner, recognize the shortcomings of the reserve study standards that have existed for many years, and are drawn towards the approach expressed in the ICBI standards.

1302 - High Rise Associations

1302.1 - High-rise associations contain complex mechanical equipment typically not found in other types of properties. This is simply due to the physical structure of the building. These complex systems also create a more challenging setting for completing a reserve study, as the reserve practitioner must again have knowledge of these systems in order to complete the engagement.

1302.2 – In addition to the many example components listed below, high rise building also tend to have roofing systems that are completely different than the more common low rise or garden style condominium buildings. High rise buildings typically have a relatively flat roof, and often with considerable equipment contained on the roof.

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1302.3 - Typical roofing systems are:

- EPDM Rubber – Ethylene Propylene Diene Monomer, a type of synthetic rubber
- SPF – Spray Polyurethane Foam roofing system
- Elastomeric roof coatings are often applied over foam or metal roofs to seal the surface
- Built up roof systems such as rolled composition, hot mopped , or hot mopped gravel
- Fiberglass mesh roof systems
- TPO (Thermoplastic Olefin) roof systems

1302.4 – Examples of component unique to high rise developments are:

- Elevators
- Fire suppression systems
- Boilers (hot water heaters)
- Chillers / cooling towers
- Heating / cooling / air exchange systems
- Pressure tanks
- Pressure and circulation pumps for domestic and fire water, and natural gas
- Underground parking or separate parking structures
- Emergency generators
- Security systems
- Access systems
- Swimming pools and spas
- Complete fitness centers.

1302.5 – In addition, some high rise buildings have extensive lobbies, and common area rooms such as fitness centers, kitchens, meeting rooms, recreation rooms and wine cellars. These facilities introduce significant interior components such as furniture, appliances, and other equipment that must be included in the reserve study.

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13 – Specialty Associations

1302.6 – Fire systems generally consist of four different components from the perspective of the reserve study. The high pressure pipe system, the sprinkler heads, the electronic monitoring system, and the fire pumps. The reserve practitioner needs to be aware of the general characteristics and possible causes of failure of each separate parts of the fire system, as they all have different lives. Also, parts of the fire system that are exposed to the elements in open or partially covered and underground garages are subjected to accelerated aging, and at different rates depending on the part of the country and general weather conditions to which it is subjected (salt air, extreme cold, etc.)

1302.7 – Elevator systems vary in type, and depending on age of the system, in the electronics that control the system. The two basic types of elevator systems are hydraulic systems and traction systems. Hydraulic systems depend on pumps to move hydraulic fluid into telescoping tubes to raise and lower the elevator cab. Traction systems use a cable pulley system and variable speed electric motors to lift the elevator.

1302.8 – The elevator system consists in general of the following parts:

- Lift mechanism
- Braking system
- Elevator cab
- Electronic control system
- Backup battery system
- Elevator doors, both on the cab and at each stop

1302.9 – Virtually all high rise buildings containing elevators enter into service contracts with elevator companies to maintain the system. Knowledge of the limitations of the elevator maintenance contract is essential in determining what components must be included in the reserve study. Most maintenance contracts generally cover routine maintenance and replacement of minor parts of the lift mechanism and braking system that wear out through normal use.

Reserve Studies – The Complete Guide

13 – Specialty Associations

1302.10 – Remodel of the elevator cab is always at the expense of the association. Many associations remodel cabs long before they actually wear out, simply for aesthetic reasons. Complete replacement of elevator systems often occurs in the 30 to 40 year age range, often because the existing technology is so old that replacement parts are difficult to acquire, or that it is no longer considered adequate to meet current needs.

1302.11 – Lobby remodels often occur for aesthetic reasons long before functionality is gone. It is not uncommon to experience complete lobby renovations in as little as a 10-year time frame. In general, the more exclusive the property, the shorter the time frame between remodels.

1303 - Timeshare and Fractional Associations

1303.1 - There are many different kinds of fractional associations, but we are including all of them under the generic name of timeshare associations. The ownership structure of the traditional timeshare Association represents deeded one-week timeshare intervals with 51 owners per physical unit on the property with one week being retained by the resort for maintenance purposes.

1303.2 - Other variations of fractional associations include non-deeded (use only) weeks, deed only weeks, points-based ownership, and vacation clubs, to name a few. Alternate time period ownership structures include numerous variations from quarter shares (three months) to four or five week shares, and, on the high end of the market, the private residence club. The challenge of preparing reserve studies for private residence clubs is that interior appliances and furnishings must often be custom priced, as each unit is different, and the quality of product means these items generally cost multiples of furnishings found in traditional timeshare units. Another type of property that is being more frequently encountered is the condo hotel property, which is discussed below at section 1304.

Reserve Studies – The Complete Guide

13 – Specialty Associations

1303.3 - The physical structure of timeshare associations also varies, from individual home and villas, to low rise and garden style projects to high rise associations. It is not uncommon to find several different associations within the same physical development that could include both full ownership and timeshare associations. Some timeshare associations consist of interior only units located in hotels.

1303.4 - Units themselves come in all types of physical flavors from studios to three and four bedroom units, with the majority being one or two bedroom units.

1303.5 - The unique factor that makes timeshare associations different from other (whole ownership) types of associations is that the Association is responsible for maintaining unit interiors and furnishings, typically referred to as "furniture, fixtures, and equipment," or "FF&E." For reserve management purposes, FF&E requires a more detailed system than is applied to building exterior components such as roofing, siding, painting, and paving, just because there is so much of it and the manner in which normally replaced.

1303.6 - In most resorts, units are typically not all remodeled at the same time, because units must always be available for member use. This is more difficult in some locations, because the resorts operate at or near 100% capacity at all times. This is particularly true of resorts in Hawaii and Florida, as the weather is (nearly) always perfect, and these are favored vacation destinations. This has a significant impact on the reserve study, as it means that you can't simply assume that all sofa beds will be replaced at the same time. Therefore, they can't be combined into a single component.

1303.7 – This is why the Excel spreadsheet approach doesn't work for timeshare resorts, unless they are interested strictly in a budgetary analysis. In the budgetary analysis approach, the level of component detail doesn't matter too much, as the goal is simply to determine the annual assessment. From a reserve management plan perspective, you must know the dates replaced for each component, or you can't track and manage your individual reserve components.

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13 – Specialty Associations

1303.8 – The ICBI Standards Committee included 8 (from a total of 16 on the committee) individuals that either do work in, have worked in, or have steadily provided services to the timeshare industry. That group felt strongly enough about the issue of being able to manage individual components that they insisted that the ICBI standards require individual unit tracking capability in software in order to be certified for timeshare use.

1303.9 - Many unit interior items are replaced on regular timetables effectively dictated by the Association's exchange agreements with organizations such as RCI (Resort Condominiums International) or II (Intervals International). Both of these exchange organizations have established standards by which they rate the resorts that are affiliates of their exchange programs. These standards may require that units be partially remodeled on a seven-year lifecycle and completely remodeled on a 14-year lifecycle, even though many of the components such as tile flooring, fixtures, or certain appliances may actually have a longer lifecycle. On the other hand, upholstered furniture may have a shorter life cycle than seven years. The only way that an association can accurately and efficiently manage this process is through reserve study software with unit tracking capability. Ideally such software would also allow the association to be able to produce reports on a unit by unit basis.

1303.10 - Reserve policies are especially critical for timeshare resorts, because of the large number of relatively low value components located in unit interiors. Determining how these components are included in the reserve study is referred to as "setting the scope" of the reserve study. The purpose of setting the scope is to keep the number of components at a reasonable, manageable level. The scope should be defined in the reserve policy. A typical two bedroom unit can contain more than 150 separate components, but it's wise to limit the number of major unit interior components at approximately 35 - 45 items, with a single "group" component that accumulates the remaining lower dollar value components. This results in a manageable component list while still providing enough detail for accountability.

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1303.11 - A very thick report (the typical reserve study report seen today) containing excessive component details would overwhelm the average member trying to read this report, thereby effectively rendering the report useless. The purpose of ICBI's single page summarized financial exhibits formats is that they present summary information that can be easily understood. Studies show that the single page exhibit allows the reader to not only better focus on and understand the data, but also to be able to better understand that data in the context of the whole report. Quality, not quantity.

1303.12 - But there is another reporting factor that is critical for timeshare resorts, and that is the ability to track components on a unit by unit basis. This means having the right software, and there are only a few reserve study software packages that have this capability. Because you generally don't refurbish all units at the same time, your reserve study software must be able to track components by unit, or else your reserve study can never be used as an effective management tool. Treating unit interior components in the same manner as common area components severely limits the ability to use the reserve study as a management tool. Relying on a paper reserve study has the same effect.

1303.13 - Reserves are important to allow you to properly maintain your resort. Resorts that are well maintained have a formal maintenance plan, and a reserve study that is the financial reflection of that maintenance plan (the reserve study itself is NOT a maintenance plan). It is difficult for a resort to know where it stands if all it has is a static, once-every-three-years paper reserve study report. In order to manage the reserve process effectively, you need to have an effective management tool. This is accomplished by using reserve study software in-house for updates of your plan as you contribute funds to and make expenditures from reserves. Better yet if that software is an internet-based system which allows you better access and control.

1304 - Condo Hotel Associations

1304.1 - Condo hotel developments are distinguished from other types of multiuser properties in that the units are full ownership units, but the property is operated on a hotel basis. In fact, the purchase agreements will often require that the unit be held in the rental pool and not be used by

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the owners for more than several weeks per year. The condo hotel development therefor has the ownership characteristics of a full ownership association, but operates like a timeshare.

1304.2 - One of the big questions for condo hotel properties is “who is responsible for unit interiors?” The answer has to be that ultimately, the unit owner is responsible. However, because of the manner in which the properties operate, many times the association performs maintenance functions, including furniture replacement, then simply bills the owner for the purchases made on his behalf. Some condo hotel associations structure their budgets to include reserve assessments for unit interiors. What this means in some such resorts is that a separate reserve schedule is required for each unit, since expenditures are made at the individual unit level and are deducted from the accumulated reserve assessments for that unit.

1304.3 - The exception to this general rule is that in some condo hotel properties the members themselves are responsible for replacing and upgrading their units without association involvement. We find this to be the exception rather than the rule because most associations prefer to handle the maintenance process and chargeback the owners for any costs simply to provide for consistent maintenance of units.

1304.4 – Another factor commonly encountered at condo hotel properties is that there are often several different entities operating in the same physical location. Examples would be (1) the condo hotel association, (2) a rental pool organization as a separate administrative entity, and (3) a separate common area cost center organization that absorbs costs of all common area activities, and allocates it to the various ownership organizations based on some formula.

1304.5 – Because of the typical complexity of condo hotel operations, it is common for a single reserve study company to be engaged to perform reserve studies for all the separate organizations at the same time.

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1305 - Country Clubs

1305.1 – Golf courses are the central recreational activity of many housing developments. While some large scale associations own and operate golf courses as part of the Association activities, this section considers the golf course as a separate entity.

1305.2 - Country clubs can have numerous types of additional amenities not found on any other type of property. Examples include:

- Golf courses
- Roads
- Marina and boat operations
- Restaurants and bars
- Extensive clubhouse amenities
- Extensive fitness centers
- Maintenance structures
- Maintenance equipment

1305.3 – The golf course itself consists of many different components.

- Tees
- Fairways
- Greens
- Sand bunkers
- Water hazards
- Cart paths
- Irrigation systems
- Wells
- Pumps
- Drainage systems
- On course restrooms
- Driving range and nets

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1305 - Country Clubs

In addition, there are design and consulting fees, and possible earthwork costs in any significant rehabilitation of a golf course.

1305.4 - The golf course is also a classic example of where the CAI and APRA reserve study standards don't work, as many individuals maintain that the grass on a golf course does not have either a useful life or a predictable remaining life, therefore cannot be included in a reserve study. In fact, as this is written, there is a battle brewing at an association over exactly that point. The association wants to (and really needs to) spend several million dollars rebuilding a 45 year old golf course. The non-golfers in the community are challenging this as an illegal use of reserve funds because grass does not meet the "four point test" for qualifying as a reserve component.

1305.5 – In the authors' opinion, the non-golfers are both right and wrong. They're right in asserting that grass doesn't meet the CAI and APRA four point test – it is the test itself that is wrong. Theoretically, with the right maintenance, the grass could last forever. Practically, however, most golf courses undergo significant rebuilds in the 40 to 50 year range, which establishes a useful life range.

1305.6 - One of the significant differences between country clubs and associations is that country clubs do not have the same type of governing documents. Country clubs are generally not contractually bound to maintain "common areas." They maintain both real and personal property assets purely out of a business need. This eliminates the argument occasionally heard in the association arena about excluding personal property (equipment) from the reserve study.

1305.7 – Determining what component to include in the reserve study is very important for a country club operation, and depends on how the club approaches maintenance, and their long term plans. Most of the real property assets have a very long life span, well beyond the 30 year funding window normally considered for associations. Some people, as an example, argue for excluding rebuilding the golf course from the study.

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1305 - Country Clubs

1305.8 - Scoping the level of component detail is very important for a country club operation. When looking at a single component, the golf course, some people take the position that they are only concerned about the total cost of rebuilding a hole, because they are going to contract out the entire project. Others take the position that every tee, green, fairway, bunker, and water hazard be individually identified and priced, as they don't necessarily rebuild the entire hole all at once, but replace it in stages. Some will price tees, fairways, greens and bunker as a single "job" cost per item, and others will price them on a per square foot basis.

1305.9 – The reserve practitioner must determine this scope of component detail before even bidding the job. Also, in the association setting, the clubhouse, tennis courts, and other recreational amenities tend to receive less focus, because they are a part of what is normally a much larger group of components. In the country club setting, these components are the only focus, so country clubs generally demand more detail in their reserve studies.

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14 – Reserve Study Resources

1400 - Introduction

14.1 – Appendix - Excerpts from Operating Cost Manual

14.2 – Appendix - Excerpts from Reserve Study Guidelines

14.3 – Appendix - Consumer Warning

14.4 – Appendix - RFP – Request For Proposal

1400 - Introduction

1400.1 – One of the biggest challenges faced by associations preparing their own reserve studies is knowing where to obtain information. Reserve practitioners presumably already know where to obtain information. But for others, huge questions that may arise can become a challenge. The first task in such situations is to determine what kind of information you’re looking for.

1400.2 – If you’re trying to conceptually understand reserves, you can get the information you need by reading this book. If you’re looking for the best guidance on standards for reserves, visit the International Capital Budgeting Institute (ICBI) website at www.capitalbudgeting.org. Want to understand reserve calculations and funding plans? Read chapters 7 through 10 of this book. Most people, however, are looking for guidance on components.

1400.3 – Component data can come from a number of different sources. We recommend using “real” numbers whenever possible. This means that generally the best information would be either the last cost you paid, or a current bid, or an estimate from a service provider.

1400.4 - When it comes to information provided by governmental agencies, there is little to be found, and what is available we don’t consider to be reliable. As an example, the California Bureau of Real Estate (formerly the California Department of Real Estate, and hence the initials “DRE” are still found on California publications) has published three documents related to reserves for homeowners associations

- Operating Cost Manual for Homeowner Associations (2007)
- Reserve Study Guidelines for Homeowner Association Budgets (2010)
- Consumer Warning: Underfunded Homeowners Associations (2012)

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1400.5 - The simple fact that it was considered necessary to issue the consumer warning is evidence of the failure of the first two publications. California law contains significant deficiencies related to reserves, and as a result, following California law is almost a recipe for underfunding. The law fails to comprehend some basic financial facts about reserves. (See chapter 15 for further discussion of state statutes.)

1400.6 – Excerpts from these three publications are reproduced in the appendix.

1400.7 - A number of commercial products are available to assist in determining replacement costs of components. The challenge with commercially available cost estimating guides, however, is determining the relevancy of the cost data that they provide. For instance, do they represent new construction costs, or do they represent replacement costs, including removal of old material? Has cost been adjusted for geographic pricing differences? A few of the most popular services are shown below.

1) RS Means Cost Data Book - \$207

<http://www.rsmeans.com/product.aspx?zpid=1002>

Online version - \$850 <http://www.rsmeans.com/66001p.aspx>

2) Marshall Valuation Service - \$600

<http://www.marshallswift.com/p-30-marshall-valuation-service.aspx>

3) M&S estimator software

<http://www.marshallswift.com/p-15-commercial-estimator-7.aspx>

1400.8 – Another request we frequently receive is for information about how to create an effective RFP (Request For Proposal) when individuals don't have enough knowledge about the topic to create one. Our first response now would be to suggest you read this book, which will provide you with enough knowledge to create the RFP. Our second response would be that we already did the work for you. See the Appendix for the RFP Form. This form is also available as a download at <http://www.reservestudyusa.com/downloads>

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Appendix 14.1 – Excerpts from Operating Cost Manual

OPERATING COST MANUAL

*for
Homeowner Associations*

**California
Department of Real Estate**



Serving Californians Since 1917

Revised April 2007

OPERATING COST MANUAL

For Homeowner Associations

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300 — RESERVES

The reserve section of this manual only includes components or costs for items most frequently found in common-interest subdivisions. Reserve items for your budget may not be limited to those found in this manual. Your budget should be tailored to fit your project and include necessary reserves for all appropriate items.

Different components wear out at different rates. A deck chair may be unusable after two years while the roof may last for twenty years. Good property management practices call for a fixed amount to be allocated each year to insure that the association will have sufficient funds on hand when a predictable major expense must be paid. Even if every existing owner believes that he or she will sell before the roof must be replaced, the existence of a reserve fund for replacement may increase the marketability and value of units to knowledgeable purchasers.

An important policy issue for the Board is the decision to use current costs, or estimated future costs. Use of an inflation rate will generally result in higher estimates of future costs.

If the Board uses current costs, it is essential that the association Board review the reserve costs annually based upon updated current replacement costs plus currently required or anticipated expenditures. The annual cost for each component would be calculated by dividing the unfunded replacement cost by the remaining useful life. **THIS APPROACH IS VALID ONLY IF REPEATED EACH YEAR.**

If the Board chooses to use an inflation rate, it would apply an average annual long-term cost inflation rate to all components from the time of the study until the year of replacement (based on recent average component cost data). **TO KEEP THIS PLAN CURRENT, IT IS IMPORTANT TO ANNUALLY REVIEW AND UPDATE PROJECTED EXPENDITURES, INFLATION FACTORS AND OTHER ASSUMPTIONS.**

There are a number of ways to select an inflation rate for estimating component costs in future years. Examples of reliable sources of information for inflation factors in California are the following:

- The Federal Bureau of Labor Statistics
- Published information from construction cost estimating companies such as R.S. Means Company, Inc.
- The California State Allocation Board

In the pages that follow under this subject, there are precalculated reserve factors for several components. The reserve worksheet in Part IV provides space for use of either these precalculated factors or factors obtained from other sources. Some building components are generally expected to last the lifetime of the structure (electrical, plumbing, etc.). Normally no reserve is established for these items.

The reserve factors in this manual are based upon new building components and equipment. Therefore, these reserve factors need to be adjusted to be used for an existing development or for the

conversion of an existing structure. For existing structures you would normally divide the cost of replacing the component by its remaining useful life.

The best estimate of a component's useful life can normally be obtained from a contractor or expert in the particular field. The average lives of some of the larger building components are listed in the reserve section.

Replacement costs are difficult to estimate. However, with some effort it should be possible to arrive at a reliable estimate of replacement costs by studying appropriate building trade publications or by discussions with the customer service departments of major suppliers of building components.

301. PAINTING**Average Costs**

Painting reserves are estimated by measuring the perimeter of each structure and multiplying that amount by the height using 10' per story. This is adequate for the normal one to three story structure. No discount or additions are considered for the openings (doors and windows). Frequency of painting will vary with the surface as well as the exposure. The basis used in this manual assumes a ten year cycle on stucco and five years on trim with an overall average for most structures of seven years. Each association will develop a greater or lesser amount for this reserve as experience will dictate. The estimate based on this manual is considered to be an adequate minimum for most developments. The total estimated painting cost per square foot is \$1.12/SF or \$.16/SF/YR for stucco and \$.20/SF/YR for wood trim. The square footage estimate for calculating interior painting should be added to the exterior area when making the calculations. Costs will vary depending upon the amount of preparation work needed or building structure. For example, scaffolding for multi-story buildings (over two stories).

All areas to be painted should be included in your calculations. Commonly overlooked items are: gates, mailboxes, utility closets and doors, garage areas and courtyards.

Wood Siding

For associations with exterior walls of wood siding or Masonite, an adjustment should be made to the average cost indicated above. After computing the surface area of the wood siding, a factor of \$0.20/SF/YR should be used to compute the reserve cost. If both stucco with normal trim and wood siding make up the exterior walls, they should be listed separately on the reserve worksheet.

Decks, Porches, Etc.

Associations without wood siding which have wood decks, porches, covered or latticed patios should also adjust their paint reserve. The factor used for wood siding would normally apply in this situation. Since this type of work is more labor intensive, similar items requiring stain instead of paint should also use the higher factor, if applicable.

302. ROOFING

The following are the recommended reserves for the various types of roofing. In Palm Springs, add 20% for added costs to satisfy environmental requirements.

Roof Type	New Cost/SF/YR	Average Life *
Concrete tile	\$0.07	35 yrs.
Built-up paper/rock roofs	\$0.20	14 yrs.
Composition shingles	\$0.13	20 yrs.
Wood shake	\$0.20	24 yrs.
Wood shingles	\$0.20	22 yrs.
Fiberglass shingles	\$0.15	20 yrs.

* Life will vary with the quality of workmanship, material used and weather conditions.

If the old roof must be removed, there will be additional costs which must be included when determining the total replacement cost.

Note: Projects over 10 years old are required to have a roof certification completed by a licensed roofing contractor. The certification should indicate the estimated remaining life of the roof and the cost to replace. A copy of the certification must be included with the Duplicate Budget Package (DBP).

303. WATER HEATERS

The estimated reserve includes the retail cost of the heater and professional installation including disposal of old unit. Estimated life is based on a nine to twelve year average replacement cycle.

Capacity	Cost/Year
40 gallon capacity	\$90
70-80 gallon capacity	\$150
100 gallon, quick recovery	\$300
Boiler (20 year life)	\$300

Tankless Water Heaters	Replacement cost/Useful life
------------------------	------------------------------

Circulating Pumps — Quick Recovery/Boilers

Line Size	Cost/Year	Average Life
1"	\$45	7 years
2"	\$65	7 years
3"	\$105	7 years

Solar Heating

The California Energy Commission estimates that the collector will last at least 20 years, the tank 15 years, pumps and controls 10 years, and the plumbing 20 years. Replacement reserves estimated at 6.5% of the installed cost per year should be adequate. Maintenance is 0.5% of installed cost per year. The pump (usually 1/20 - 1/40 hp) will run 8-10 hours a day and consume approximately 350 kilowatt hours of electricity a year.

304. ELECTRIC LIGHTING FIXTURES

The reserve for this item is for replacement of the fixture itself. It is assumed that bulb replacement costs are a minor repair item.

Exterior fixtures being exposed to the elements have a shorter estimated life. The following amount is considered minimum.

Exterior fixture	\$9.00/year/fixture
Street Lights	\$100.00/year/light

305. FLOOR COVERINGS

Floor Type	New Cost/SF/YR	Average Life
Carpeting	\$0.43	7 years
Linoleum	\$0.26	14 years
Hardwood (refinishing only)	\$0.20	12 years
Vinyl Tile/Sheet	\$0.36	15 years
Waterproofing (deck/patio/terrace)	\$0.42	5 years

306. ELEVATORS

An elevator replacement reserve is not required since the elevator usually lasts as long as the structure itself. There is need, however, for a major component reserve as well as a budget item for a monthly service contract. The cost of periodic servicing of the overhead traction elevator is higher than that for the hydraulic lift type. The mechanism to operate the hydraulic lift elevator is much more extensive and complicated.

Hydraulic	\$1,050.00/year (see note)
Traction	Full service only — no reserve

Note: Less than a full service contract on a hydraulic type elevator will require a reserve as shown above. Less than full service is normally referred to as "oil and grease contract service."

307. STREET AND DRIVEWAYS

Asphalt — Intermittent Care

Budgeting should consider the long term care of streets, driveways and parking areas. A full cycle of maintenance should be provided that includes all applicable items shown below.

Seal coat	Slurry coat
Culverts	Provision for storm damage
Sign replacement	Striping
Reoiling	Patching
Regraveling (gravel roads)	Berming

Asphalt surfaces should be resealed every five years. They will probably also need intermittent care such as striping and patching. The reserve based on a cost of \$0.10 per square foot per year can be used to defray these costs in moderate climates. Where there are special problems such as severe weather or unusual physical conditions as in Northern California, the cost could double.

Oil and Chip

"Oil and Chip" surfaces normally have a life of 3 or 4 years and would require \$0.08 per square foot per year reserve.

Cost Summary

Surface Type	SF Cost Per Year
Asphalt surfaces (blacktop) (moderate climates)	\$0.10
Oil and Chip surfaces	\$0.08
Concrete repairs	\$0.02

Large areas may cost less on a cost/square foot basis. It may be advisable to get a bid if you fall into this category.

308. HEATING AND AIR CONDITIONING

Type	Average Cost Per Year	Average Life
Forced air furnace (for average recreation room)	\$100	20 years
Forced air furnace with A/C (for avg. recreation room)	\$200	20 years
Heat Pump (used with central unit)	\$150	—
Thru wall A/C units	\$85	9 years
Floor or wall furnaces	\$50	13 years
Central Heat, A/C for units	Cost ÷ 20 year life	

The best method of setting up reserve costs for these items is to determine the cost of the equipment installed, and divide by the life indicated.

309. SWIMMING POOLS AND SPAS

Pool and spa costs will vary for large custom pools or spas as well as very small pools and spas. Costs should be adjusted accordingly. For standard sizes, average costs are:

Item	Average Cost Per Year	Average Life
Pool Re-plaster	\$500	12 years
Pool Heater	\$200	10 years
Pool Filter	\$125	10 years
Spa Re-plaster	\$200	7 years
Spa Heater	\$200	8 years
Spa Filter	\$125	10 years
Pool/Spa Pumps	\$120	5 years

Solar Heating

Reserve requirements will vary with the type of collector panel used as well as with the price. Most pool systems use "unglazed" collectors which are cheaper than those used for water heating. Unglazed collectors vary, also: those made of metal will last longer than plastic. The California Energy Commission has not made public its figures on the useful life of this equipment. Depending on how the system is used, there may be a small increase in electricity used to run the filter pump. Replacement reserves amounting to 6.5% of the installed cost per year should be adequate.

310. TENNIS COURTS

Item	Cost Per Year
Net replacement (3 yrs)	\$150
Wind screen (full court; 5 yrs)	\$300
Asphalt resurfacing (4-7 yrs)	\$450
Concrete resurfacing (5 yrs)	\$500
Light fixtures	\$100
Elastometric caulking (4-7 yrs)	\$100

311. FURNISHINGS AND EQUIPMENT

Item	Cost
Furnishings	Cost ÷ 5 years
Appliances/equipment	Cost ÷ 12 years

312. WALLS AND FENCES — REPLACEMENT/REPAIR

Item	Cost Per Year
Chain Link (repair/replace- ment; 17 year life)	\$0.65 linear foot
Concrete block (repair)	\$0.20 linear foot
Concrete block (paint)	\$0.10 square foot/side
Tubular fence (paint)	\$0.30 square foot/side
Tubular fence (repair/replace- ment; 15 year life)	\$2.00 square foot
Wood (repair/replacement; 10 yr life)	\$1.50 linear foot
Wood (paint/stain) (Compute with wood siding, if any. See Item 301 in manual.)	\$0.20 square foot/side
Wrought Iron (paint) (Compute costs separately from paint worksheet.)	\$0.50 square foot/side
Wrought Iron (repair/ replacement; 20 year life)	\$3.00 linear foot
View Panels	\$1.00 linear foot

313. MISCELLANEOUS

Item	Cost Per Year
Sump pumps (12 year life)	\$60
Sewer lifts (pumps; 10 yr life)	\$200
Garage ventilation systems (each parking level)	\$300
Solar systems (Also see Gas & Pools)	Total Cost ÷ 10-15 yr life
Racquetball courts	\$240
Lakes/waterways	Provide engineer's report for construction cost, yearly maintenance and reserve costs.
Motorized gates	
Gate (repair/replacement; 15 year life — large double gates, \$450/yr)	\$250
Gate operator (all types — 5 yr life)	\$155
Total Per Gate	\$405

Wallpaper (10 year life)	\$0.19	square foot
Tree Trimming (mature trees)	\$95	per tree
Landscape reserve	\$0.01	square foot

Reserve cost for septic tank

Use 6% of the total cost for leach field excavation, gravel, paper, straw and other backfilled materials, leach field pipe, distribution boxes, and valves. This cost is approximately \$75 per living unit per year.

Emergency Power Systems

Most mid-rise and high-rise projects are equipped with emergency lighting equipment. Costs typically include inspection and maintenance of the generator(s), if any, and replacement of the battery pack for each emergency lighting unit. The battery packs typically cost about \$150 each and have a nine year life.

314. FOUNTAINS

Fountains will cost anywhere from \$1,975 to \$35,000 depending on size, water flow and spray design. Fountain pumps typically last five to six years while the fountain itself will have a life of approximately 20 years.

400's — ADMINISTRATION

401. MANAGEMENT

The management function of a community association is administrative in nature. The Board of Directors is the principal policy making body for the association. Their role is to govern by establishing policies, operational standards, procedures, fiscal policies and eventually the association's operation budget. *Implementing policy governance means the Board does not get involved in the day-to-day operations of the association.* The role of the community management professional is to implement the policies and procedures established by the board.

There are various approaches to association management; including the use of unpaid volunteers, hiring association paid staff or utilizing a third party management firm, each of which has its pluses and minuses. Whatever the level of management services selected for the association, clearly defined tasks and responsibilities will contribute to the overall successful management of the association.

Although the governing body of the association may be willing and capable of managing the physical plant of the association, it may be unwilling or unable to manage the fiscal responsibilities mandated by the governing documents and compliance with existing law. This service may be provided by a management company or financial institution which will provide fiscal billing for members and in some instances, pay the bills incurred by the association. A higher level of service than provided by a financial institution may be required to assist the governing body in sound fiscal control management.

The hiring of professional management, whether they be a direct employee of the association or a management firm, is a critical administrative task. Community association management has become a highly technical profession requiring a trained practi-

tioner educated in the state-specific laws in managing California community associations.

As laws continue to be added each year requiring additional compliance of the duties and responsibilities of the board of directors, the association may be well-served to hire skilled professionals in the management of a community association.

The best approach to use when hiring a professional management firm is to clearly articulate prescribed desired and undesired results from management. If this does not occur, it will be impossible and unfair to evaluate the results. It is important to evaluate results and not procedures.

Professional management company

The higher level of fiscal management, or financial service, can usually be obtained through a professional management company. The customary financial service provided by a management firm may include, but is not limited to: collection of assessments, payment of bills, preparation of comprehensive financial reports which includes; a balance sheet, an income vs. expense statement, receipts and disbursement journal, check register, and delinquency reports. Delinquency follow-up reports and current members listing are other types of reports which can be generated.

Fiscal billing and collection

An association electing to contract with a management firm that offers minimal fiscal services, or fiscal billing and collection activities (other than delinquency collection), should budget an amount of \$10/unit/month or \$350, whichever is greater.

Financial service

An association electing to contract with a management firm that offers a higher level of fiscal service, or financial service including billing, collection, payment of invoices, preparation of financial statements and fiscal compliance to California Civil Codes should budget \$13/unit/month or \$850 per month, whichever is greater.

Third party common-interest specialist

The association may wish to contract for management by a third party professional management company specializing in common-interest subdivisions. Not all associations require the same level of management services and not all management companies provide the same level of services.

The cost of professional management is not minimized based on the size of a common interest subdivision. Duties performed are defined in the contract between the board of directors and the managing agent. Functions identified in the contract are driven by the number of hours it requires to perform the required services and not the size of the subdivision. The basis for this approach is legal and statutory as current laws do not differentiate between size or type of common interest subdivisions, or the types of amenities contained within, or whether the subdivision is attached or detached.

When budgeting for professional management in the common interest subdivision, many factors must be considered to facilitate the overall success of the community association. A proposed contract from any service provider that is not sufficient to meet the needs of the community and its future growth, will most

RESERVES WORKSHEET

DRE FILE NUMBER		TRACT NUMBER				
Item	(1) ① Sq. Ft. or Number	(2) ① Unit Cost HOA Manual	(3) ① Replacement Cost	(4) ① Remaining Life	Yearly Reserve Columns 1x2 or 3+4	Cost Per Unit Per Month
Paint						
Wood Siding (paint/stain)						
Roof - Type:						
Roof - Type:						
Water Heaters						
Exterior Lights						
Hard Floors - Type:						
Carpets						
Elevators						
Streets & Drives						
Heating & Cooling						
Pool Re-plaster						
Pool Heater						
Pool Filter						
Spa Re-plaster						
Spa Heater						
Spa Filter						
Pool/Spa Pumps - No:						
Tennis Courts -- No:						
Furnishing/Equipment						
Fences (paint/stain)						
Fences (repair/replace) - Type:						
Walls (paint)						
Walls (repair/replace)						
Wrought Iron Fencing (paint)						
Wrought Iron (repair/replace)						
Pumps/Motors - Type:						
Motorized Gates						
Wood Decking						
Septic Tanks						
Fountains						
Storm Drain Filters						
Other						

① Use either Columns 1 and 2 or 3 and 4, but not both for a particular item.

TOTAL RESERVE

Note: For space purposes, we have included only the components most frequently found in common-interest subdivisions. Reserve items should not be limited to the list above, but be tailored to your particular project.

GENERAL PROJECT INVENTORY

- ❖ Complete schedules 1 through 6 below, then transfer the totals to Site Summary area.
- ❖ Frequently several buildings will be repeated in a subdivision. These may be combined on one line. Wherever additional space is required attach computations on a separate sheet.

SITE SUMMARY – TOTAL SUBDIVISION AREA

_____ acres x 43,560 =	_____ Total square feet.	
1. Building(s) footprint	_____ sq. ft.	
2. Garages or carports	_____ sq. ft.	
3. Recreational facilities	_____ sq. ft.	
4. Paved surfaces	_____ sq. ft.	
5. Restricted common areas	_____ sq. ft.	
6. Other: (attach description)	_____ sq. ft.	
Sub Total (1–6)	_____ sq. ft.	
Total Square Ft. (from above)		_____ sq. ft.
Subtract Sub Total (1–6)		_____ sq. ft.
Remainder = landscape area		_____ sq. ft.

INDIVIDUAL SUMMARY SCHEDULES

1. Buildings Containing Units

Length	x	Width	=	Area of Each Bldg.	x	No. of Buildings	=	Total Area Square Feet
_____	x	_____	=	_____	x	_____	=	_____
_____	x	_____	=	_____	x	_____	=	_____
_____	x	_____	=	_____	x	_____	=	_____
_____	x	_____	=	_____	x	_____	=	_____
Total for Summary Item 1 above								_____

2. Multiple Detached Garages and Carports

_____	x	_____	=	_____	x	_____	=	_____
_____	x	_____	=	_____	x	_____	=	_____
_____	x	_____	=	_____	x	_____	=	_____
Total for Summary Item 2 above								_____

3. Recreational Facilities

Total Area

- a. Recreation Room, Clubhouse, Lanai, or other
(length x width = total sq. ft.)

_____ x _____ = _____ sq. ft.

- b. Pools

Number: _____
Size: _____

_____ sq. ft.

- c. Spas

Number: _____
Size: _____

_____ sq. ft.

- d. Tennis Courts

Number: _____
Size: _____
Surface Type: _____

_____ sq. ft.

- e. Other: (describe)

_____ sq. ft.

Total for Summary Item 3 above _____ sq. ft.

4. Paved Areas (streets, parking, walkways, etc.)
(length x width = square foot area)

Paving Material (concrete, asphalt, etc.)

_____ x _____ = _____
 _____ x _____ = _____
 _____ x _____ = _____
 _____ x _____ = _____

Total for Summary Item 4 above _____ sq. ft.

5. Restricted Common Areas Use (patio, etc.)
Describe and attach calculations

Total for Summary Item 5 above _____ sq. ft.

6. Other – Describe and attach calculations

Total for Summary Item 6 above _____ sq. ft.

PAINTING WORKSHEET

EXTERIOR

Exterior painting area is determined by measuring the structure to find the perimeter (total distance around) and multiplying that by 10 for each story. Use a separate line for each story if the configuration of the building changes from story to story (for wood siding see Item 301 in the Cost Manual).

- Buildings (include garages, recreation buildings)

Type of Surface	Perimeter	x	10 ft.	x	No. of Stories	x	No. of Bldg. (if identical)	=	Total Area
_____	_____	x	10 ft.	x	_____	x	_____	=	_____
_____	_____	x	10 ft.	x	_____	x	_____	=	_____
_____	_____	x	10 ft.	x	_____	x	_____	=	_____
_____	_____	x	10 ft.	x	_____	x	_____	=	_____

Total building paint area _____

Walls	Linear Feet	x	Height	x	2 ①	=	Total Area
_____	_____	x	_____	x	2	=	_____
_____	_____	x	_____	x	2	=	_____
_____	_____	x	_____	x	2	=	_____

Total wall paint area _____

Total exterior paint area _____

INTERIOR

Interior painting reserve is determined by measuring the room perimeter and multiplying by 8' and adding ceiling area.

Room/Type Descrip.	Walls Perimeter	x	8 ft.	=	Wall Area	+	Ceiling (Length x Width)	=	Total Area
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____
_____:	_____	x	8 ft.	=	_____	+	_____ x _____	=	_____

Total interior paint area _____

TOTAL EXTERIOR AND INTERIOR _____

FENCES

Fence requiring paint or stain (see Item 312 in manual for wood and wrought iron)

Compute separately using higher cost—put on separate line on page 5 of the Reserve Worksheet.

Linear Feet	x	Height	x	2 ①	=	Total Area
_____	x	_____	x	2	=	_____
_____	x	_____	x	2	=	_____
_____	x	_____	x	2	=	_____

Total fence area _____

- ① Always multiply by 2 to cover the area for both sides of the wall or fence. If the wall or fence will be painted or stained on one side only, adjust your calculation and make appropriate notation on the worksheet.

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Appendix 14.2 – Excerpts from Reserve Study Guidelines

State of California
Department of Real Estate

RESERVE STUDY GUIDELINES

for Homeowner Association Budgets



August 2010

State of California
Department of Real Estate

RESERVE STUDY GUIDELINES

for Homeowner Association Budgets

August 2010



This independent research report was developed under contract for the California Department of Real Estate by Eva Eagle, Ph.D., and Susan Stoddard, Ph.D., AICP, Institute for the Study of Family, Work and Community and David H. Levy, M.B.A., C.P.A. Janet Andrews, MBA, was responsible for the original design, layout, and typography. The Department of Real Estate revised this publication in August 2010. It includes updates by Roy Helsing PRA, RS to insure it aligns with current California Law and the guidelines of the Association of Professional Reserve Preparers (APRA) and the Community Associations Institute (CAI).” The report does not necessarily reflect the position of the Administration of the State of California.

NOTE: Before a homeowners’ association decides to prepare its own Reserve Study, it should consider seeking professional advice on that issue. There are issues concerning volunteer board member indemnification, reliance on expert advice, and other factors that should be considered in that decision. The goal of this manual is to help the reader better understand Reserve Studies. It is not the intent of this manual to define the “standard of care” for Reserve Studies or to interpret the California Civil Code.

Department of Real Estate ■ Publications ■ 2201 Broadway ■ Sacramento, CA 95818 ■ Web site: www.dre.ca.gov

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Appendix 14.3 – Consumer Warning



Consumer Warning: **Underfunded Homeowners Associations**

By Joseph Aiu (Statewide Subdivisions Compliance)
California Department of Real Estate

The California Department of Real Estate (DRE) has issued this warning as a result of the growing number of homeowners associations (HOAs) that do not have sufficient funds or reserves to adequately maintain the common areas in the housing developments for which the HOA is responsible.

This warning will explain the negative effects and impacts of an underfunded HOA, offer suggestions on how to gauge the financial health of an HOA, and discuss some typical causes of an underfunded HOA.

Negative Effects of an Underfunded HOA:

An underfunded budget may cause unexpected expenses for the owners living in a CID and/or have a deleterious affect on the value or condition of an owner's property. If the HOA cannot properly maintain the common areas due to budget constraints, roads, pools, exterior paint, and roofs may fall into disrepair. Moreover, underfunded HOA budgets may create pitfalls for homebuyers who do not investigate the financial health of the HOA prior to buying into a CID. HOAs facing severely underfunded budgets often must resort to levying special assessments on the owners living within the CID in order to pay for needed repairs or maintenance. Special assessments can run into the tens of thousands of dollars so owners and buyers would be wise to look into the financial health of the HOA to ensure they aren't exposing themselves to unexpected expenditures and financial problems.

How to know if the HOA is Financially Healthy:

HOAs are required to produce a yearly budget and to furnish it to the owners in the association. In addition, at least once every three years, the HOA is required to review the major components of the CID that the association is obligated to repair, replace, restore, or maintain, as part of a study of the reserve account requirements, to ensure sufficient funds are, or will be, available to adequately maintain the common areas. Included in the budget documents, the HOA is required to provide a summary of its reserves and whether the reserves are adequate to maintain all the major components of the CID. This summary disclosure document is an excellent tool to determine the long term financial health of any HOA.

In addition, the law affords a potential buyer or an owner in an association the opportunity to review the HOA's financial documents. For a potential buyer, the financial documents may be requested from the seller. For an owner in the association, the financials should be received from the HOA at least annually.

Typical Causes of HOA Underfunding:

Foreclosures are a significant cause of underfunded HOA budgets. Homeowners in foreclosure often do not make their assessment payments. Due to the length of the foreclosure process, the non-payment of assessments may cover a period of 90 days to a few years. Although HOAs have the ability to place a lien against a homeowner's property for non-payment of assessments, HOA liens are often extinguished at the foreclosure sale because the value of the property is insufficient to pay off all the liens against the property. This is especially true in cases where the value of the property is less than the mortgage. The end result is the HOA ends up with less than the projected assessment income, which leads to an underfunded budget.

Inadequate planning on behalf of an HOA board can also lead to an underfunded budget. In instances where a CID or HOA is facing dire economic conditions, an HOA board may succumb to the pressure of its association members and not increase assessments or even reduce assessments and forego on-going maintenance. These types of bad decisions inevitably result in the HOA levying special assessments against the owners to address health and safety issues that arise from neglect. In addition, reduced care and upkeep of a CID's common areas result in the inability to sell or secure financing because of the dilapidated condition of the property.

HOAs that rely on inadequate assessment collection procedures usually suffer from insufficient funding to satisfy their financial obligations. For example, homeowners who are not in foreclosure but refuse to pay their assessments may rely on the association's poor collection process as a way to delay making their assessment payments. This may result in a "domino effect" where other members stop paying their assessments under the rationale that since others are not paying, why should they.

What to be Aware of when a CID has an Underfunded Budget:

- Special assessments. Inevitably, underfunded budgets lead to special assessments as mentioned above. This is the common method HOAs use to satisfy financial obligations. While an HOA is limited on how much it can increase assessments - typically 5% per year - a special assessment can be assessed in order to resolve a health and safety issue. This means the entire cost to make a repair can be levied against all its members, or members who are paying assessments. Special assessments can be tens of thousands of dollars.
- Inability to sell or declining property values. It can be very difficult to sell a home if the HOA's assets are inadequate to satisfy its financial obligations. Buyers will be leery of special assessments and/or increased monthly assessments. Moreover, property values may depreciate dramatically because of deferred maintenance and inadequate funds to satisfy financial obligations.
- Inability to secure financing. Lenders (subject to underwriting guidelines from Fannie Mae or Freddie Mac) may deny funding loans whenever an association funds less than 10% of its operating funds into its reserves. In addition, lenders

are reluctant to fund loans when an association cannot meet its financial obligations.

Quick Tips for Evaluating the Financial Health of an HOA:

- If you are a buyer, demand that the seller provide you with copies of the most current financials for your review.
- If you are an owner, make sure that you are given annual financial reports, especially the delinquency report and those pertaining to the adequacy of the reserve account.
- If you are a buyer, do a physical review of the property and observe how the common areas are maintained. For example, assess the condition of exterior paint, amenities, roads, roofs, drives, fencing, etc.
- If you are an owner, be involved with the board and its decisions, especially when you see deferred maintenance of common areas or are subject to special assessments.

Conclusion:

The issues raised in this warning, along with the suggested steps to take to avoid potential financial problems, are not all inclusive. Each project in California may have unique issues that can only be addressed by you, as either the buyer or owner, performing your due diligence.

However, what appears to be a common thread in today's real estate economic climate is that many projects are falling victim to hard times and the result is the underfunding of HOA budgets.

Please refer to DRE's web site, www.dre.ca.gov for additional information on Common Interest Subdivisions, including the brochure Living in a Common Interest Development.

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Appendix 14.4 – RFP – Request For Proposal – Short Form

_____ **Association**

Request For Proposal (RFP)
(Short Form)
2015
Reserve Study of the Association's
Common Area Real and Personal Property Components

1 - Introduction and Background Information

1.1 – Introduction

The _____ Association (hereinafter referred to as “Association”) is seeking proposals for a Type 1 reserve study, a full reserve study with on-site analysis. The Association desires to be involved in the reserve process, and, based on research, believes that a Reserve Management Plan reserve study engagement under ICBI (International Capital Budgeting Institute) standards that involves interaction of the reserve professional with Association staff is the best approach to achieve a realistic reserve budget that the Association can monitor on a continuing basis.

The Association is also making the transition from the traditional paper based reserve study report to a dynamic process using reserve study software available to the Association to provide for continual monitoring of the reserve study process. The Association believes that a fresh approach to the reserve study, conducted under the highest standards, with reserve preparers holding recognized credentials, and interacting with Association staff, will more likely than not result in a more comprehensive analysis. The Association will provide a component list from the prior reserve study as a starting point for the identification of components.

As part of the Reserve Management Plan engagement, the successful proposer is expected to discuss the following with Association staff prior to beginning the engagement; Scope of components, Inclusion of photographic images in reserve study and software, How enumeration / measurement of components is conducted, and Sources of component cost data.

1.2 – Background Information

The Association is a planned development (condominium development) residential community located in _____. The Association consists of 1,000 residential lots (units) and major amenities include:

- Clubhouse and fitness center, including two swimming pools, and a splash pad
- Clubhouse furnishings and equipment
- Recreational facilities consisting of; equestrian center, Golf course, and Tennis courts and related amenities, Five parks and sports fields
- Guardhouses at all three entrances
- Private streets and Fences and walls
- Maintenance equipment and Patrol vehicles

The Association considers the budget process - the creation of and monitoring of the budget, to be the primary fiscal responsibility of the Board of Directors. The reserve budget is updated

annually considering major repair and replacement projects that have been completed in the preceding year and those future expenditures planned within the five year planning cycle.

Because the reserve expenditures are a significant part of the Association's overall budget, the Association desires to adhere to the highest standards, and to monitor the reserve plan on an ongoing basis. Accordingly, the Association requires that the reserve study be conducted under ICBI (International Capital Budgeting Institute) Generally Accepted Reserve Study Standards as a Reserve Management Plan, and that software be provided to allow Association staff or management to update the reserve plan as changes occur.

2 - Scope of Work

2.1 - Statement of Purpose - Project Overview and Objectives

The Type 1 Reserve Study (full reserve study with on-site analysis) of the Association's common area real and personal property components will include an analysis of condition of each component. This study is not considered to be a project condition assessment (PCA) or a maintenance plan, so will not include a comprehensive analysis of overall facility conditions, an evaluation of the functional adequacy of those facilities, or requirements and associated cost of ongoing maintenance. The reserve study is restricted to existing common area components and does not consider capital improvements.

The reserve study shall be performed in accordance with the Association's reserve study policy and Generally Accepted Reserve Study Standards, as a Reserve Management Plan engagement.

At the conclusion of the study, a report should be prepared and a methodology for updating the study annually should be presented. Association staff will need to be trained in the use of the software provided.

2.2 - General Requirements – Standards and Software

The proposer shall be a recognized preparer of reserve studies, with good professional standing, and have a minimum of five years' experience in preparation of Reserve Studies. At least one member of the proposer's team must hold one of the following credentials; PRC (Professional Reserve Consultant), PRA (Professional Reserve Analyst, or RS (Reserve Specialist). The preparer of the report must be a member of the International Capital Budgeting Institute (ICBI).

Proposers should be able to demonstrate knowledge and experience in the three basic skills applicable to reserve studies; (1) knowledge of facilities management (architectural, contractor, or engineering license or facilities management credentials and/or experience satisfy this requirement), (2) knowledge or experience in valuation of components, and (3) knowledge or experience in financial modeling and presentation (CPA license or specific training in financial projections satisfy this requirement).

The reserve study report will be prepared in accordance with ICBI Generally Accepted Reserve Study Principles, and the reserve study engagement shall be conducted in accordance with Generally Accepted Reserve Study Standards, as a Reserve Management Plan. Software used to prepare the reserve study report and provided to the Association under section 2.3 of this RFP must be certified as meeting ICBI software standards.

The successful proposer must submit proof of insurance upon approval of the proposal, including; General liability, Auto, Workers compensation, and Errors and Omissions insurance.

2.3 - Deliverables - Services to be provided by Consultant

The successful proposer must perform the on-site analysis of components during the time period _____ to _____.

The successful proposer must provide a draft report by _____. Report may be in electronic format, preferably Adobe Acrobat. A paper report is not required. Association is allowed to make three revisions to this report within thirty days of receipt of report without any additional charges. Association and the reserve study company shall jointly devise the thirty year funding plan.

The successful proposer must provide software, or access to online software when the final report is accepted. The Association may request access at any earlier date beginning with the delivery date of the draft report. Proposer must provide software training and technical support to sufficient to allow Association to update the reserve plan on an ongoing basis.

Proposer may be required to make a presentation to the Association, either in person or in the form of a Skype video conference.

2.4 – Engagement Terms and Conditions

The term of this engagement is limited to preparation of the Type 1 reserve study report for 2016. Association also requests a fee proposal for Type 3 reports (updates without an on-site analysis) for years 2017 and 2018. However, award of the current contract may include only the Type 1 report for 2016.

The successful bidder / contractor will be allowed to submit an invoice for 50% of the contract amount upon the signing of this agreement. The remaining 50% payment may be invoiced when the draft reserve study report is issued.

3 - Instruction to Proposers

3.1 - RFP Submission Requirements

Each Proposer shall meet all of the terms and conditions specified in this RFP. By submitting a proposal, the Proposer acknowledges agreement with the acceptance of all provisions of the RFP. The written proposal should be submitted via email to the individual listed below. (Note that some jurisdictions or governing documents may require hard copy sealed bids.)

The complete bid package, including all attachments should be marked "Reserve Study Proposal" and emailed to _____ at _____, or, if hard copy, mailed or delivered to _____ no later than 5:00 PM on _____ Date. Proposals received after the above RFP Submission Deadline will not be accepted. The Association anticipates making a selection by _____ Date.

3.3 - Format and Content

The content and sequence of the proposal will be as follows:

- Cover Letter - A maximum one-page cover letter
- Table of Contents
- Executive Summary - This section should contain an outline of the firm's general approach, along with a brief statement of the most important features of the bid response.
- Reserve Study Approach - This section should contain the work plan.
- Proposer's Experience and Qualifications - Experience, educational background, demonstrated capability, and availability of qualified full-time key technical and management personnel who will be assigned to the engagement. This should include a list of professional organizations, indication of familiarity with state law
- References - Three references should be given, listing contact, organization, phone number and email address.
- Fee proposal, including Software cost, cost for any revisions beyond the thirty day period after submission of report, fee proposal for Type 3 updates
- Other items – This should include a statement that the proposer is independent of the association, or describe any other services provided to the Association, a statement of independence from the developer (if applicable), a listing / description of any information that will be required from the Association, and identification of the point of contact for future correspondence. Proposers are not required to submit a sample report, since they must follow ICBI reporting formats, but may submit examples of supplement schedules that they intend to include as supplemental information to the reserve study report.

4 - Selection of Consultant - Proposal Review Process and Schedule

The Association will evaluate the proposals on the basis of experience, qualifications, the proposer's approach to the project, and any other factors pertinent to the process. Although price for the services will be an important part of the consideration for award of the project, the Association will consider the proposer's qualifications, expertise and level of professional service and advice in the award of the project.

The final selection will be the reserve study company which, in the Association's opinion, is the most responsive and responsible, meets the Association's requirements in providing this service, and is in the Association's best interest. The Association maintains the sole and exclusive right to evaluate the merits of the proposals received.

The Association reserves the right to:

- 1 Postpone the Submittal Deadline and opening of proposals any time before the date and time announced in the Request for Proposals or subsequent addenda.
- 2 Waive non-substantial irregularities in any proposal, to reject any or all proposals, to reject or delete one part of a proposal and accept the other, except to the extent that proposals are qualified by specific limitations.
- 3 Reject the Proposal of any Proposer who previously failed to perform adequately for the Association.

Reserve Studies – The Complete Guide

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Appendix 14.4 – RFP – Request For Proposal – Long Form

_____Association

Request For Proposal (RFP)
(Long Form)

Reserve Study of the Association's
Common Area Real and Personal Property Components

2015

1 - Introduction and Background Information

1.1 – Introduction

The _____ Association (hereinafter referred to as “Association”) is seeking proposals for a Type 1 reserve study, a full reserve study with on-site analysis. While a prior Type 1 reserve study exists, the Association prefers to engage for a Type 1 study rather than the optional Type 2 reserve study, an engagement to update a prior study with an on-site analysis. The Association is doing so because it desires to be more involved in the reserve process, and, based on research, believes that a Reserve Management Plan engagement under ICBI (International Capital Budgeting Institute) standards that involves interaction of the reserve professional with Association staff is the best approach to achieve a realistic reserve budget that can be monitored on a continuing basis.

The Association is also making the transition from the traditional paper based reserve study report to a dynamic process using reserve study software available to the Association to provide for continual monitoring of the reserve study process. The Association believes that a fresh approach to the reserve study, conducted under the highest standards, with reserve preparers holding recognized credentials, and interacting with Association staff, will more likely than not result in a more comprehensive analysis. The Association will provide a component list from the prior reserve study as a starting point for the identification of components for this reserve study.

As part of the Reserve Management Plan engagement, the successful proposer is expected to discuss the following with Association staff prior to beginning the engagement:

- Scope of components for reserve study
- Inclusion of photographic images in reserve study and software
- How enumeration / measurement of components is conducted
- Sources of component cost data

1.2 – Background Information

The Association is a planned development (condominium development) residential community located in _____. The Association consists of 1,000 residential lots (units) and major amenities including:

- Clubhouse and fitness center
- Clubhouse furnishings and equipment
- Equestrian center
- Golf course
- Tennis courts and related amenities
- Five parks and sports fields
- Guardhouses at all three entrances
- Private streets
- Fences and walls
- Maintenance equipment
- Patrol vehicles

The clubhouse recreational area includes a fitness center, meeting rooms, two swimming pools, and a splash pad. Streets within the Association are privately owned and maintained by the

Association. Common areas are well maintained with amenities and services that enhance the lifestyle of Association members and create strong demand for new owners.

The Association is financially sound, and considers the budget process, including both the creation of and monitoring of the budget, to be the primary fiscal responsibility of the Board of Directors. The Association has structured the annual budget as part of a rolling five year plan to avoid budgeting failures that can occur by restricting the budget process to a single year. As part of the annual budget process, the Association updates the five year operating and reserve budget plan and adopts the next fiscal year's annual operating budget 60 days before each fiscal year begins. The annual operating budget is carefully reviewed to assure adequate funding for day-to-day Association operations, including normal maintenance of Association common areas in accordance with the Association's maintenance plan.

The reserve budget is updated annually considering major repair and replacement projects that have been completed in the preceding year and those future expenditures planned within the five year planning cycle. The update process includes re-challenging the timing of future reserve expenditures within the five year cycle, but does not generally expand to include additional years of the thirty year reserve funding plan.

The major repair and replacement (reserve) expenditures of the Association are a significant part of the Association's overall budget. Because of this, the Association desires to adhere to the highest standards, and to monitor the reserve plan on an ongoing basis. Accordingly, the Association requires that the reserve study be conducted under ICBI (International Capital Budgeting Institute) Generally Accepted Reserve Study Standards as a Reserve Management Plan, and that software be provided to allow Association staff or management to update the reserve plan as changes (contributions and expenditures) occur.

2 - Scope of Work

2.1 - Statement of Purpose - Project Overview and Objectives

The Board of Directors of the Association is requesting proposals for a Type 1 Reserve Study (full reserve study with on-site analysis) of the Association's common area real and personal property components. This will include an analysis of condition of each component. However, this study is not considered to be a project condition assessment (PCA) or a maintenance plan, so will not include a comprehensive analysis of overall facility conditions, an evaluation of the functional adequacy of those facilities, or requirements and associated cost of ongoing maintenance. The reserve study is restricted to existing common area components and does not consider capital improvements, which are the subject of a separate budget.

The reserve study is the long term repair and replacement budget of the Association, and is a reflection of the physical maintenance plan. The purpose of the reserve study is to establish that financial budget.

The reserve study shall be performed in accordance with the reserve study policy adopted by the Association, and Generally Accepted Reserve Study Standards, as a Reserve Management Plan engagement. The Reserve Management Plan engagement requires interaction between the reserve preparer and Association staff or management.

At the conclusion of the study, a report should be prepared and a methodology for updating the study annually should be presented. Association staff will need to be trained in the use of the software provided.

This RFP and any modifications hereto are considered as the sole reference and authority for the preparation of proposals. The contents of this RFP and subsequent modifications take precedence over any written or verbal communications.

Notwithstanding other provisions of this RFP, proposers are hereby advised that this RFP is not to be construed as engaging in formal competitive bidding pursuant to any statute, policy or regulation.

2.2 - General Requirements – Standards and Software

The proposer shall be a recognized preparer of reserve studies, with good professional standing, and at least five years' experience in preparation of Reserve Studies. At least one member of the proposer's team must hold one of the following credentials; PRC (Professional Reserve Consultant), PRA (Professional Reserve Analyst, or RS (Reserve Specialist). The preparer of the report must be a member of the International Capital Budgeting Institute (ICBI) and comply with ICBI standards.

Since the reserve study is, at its core, a financial report, proposers should be able to demonstrate knowledge and experience in the three basic skills applicable to reserve studies; (1) knowledge of facilities management (architectural, contractor, or engineering license or facilities management credentials or experience satisfy this requirement), (2) knowledge or experience in valuation of the types of components encountered in an association, and (3) knowledge or experience in financial modeling and presentation (CPA license or specific training in financial projections satisfy this requirement).

The successful proposer must submit proof of insurance upon notification of approval of the proposal. Insurance required is:

- General liability
- Auto insurance
- Workers compensation insurance
- Errors and Omissions insurance

The reserve study report will be prepared in accordance with Generally Accepted Reserve Study Principles as adopted by the ICBI. The reserve study engagement shall be conducted in accordance with Generally Accepted Reserve Study Standards as adopted by the ICBI, as a Reserve Management Plan. Software used to prepare the reserve study report and provided to the Association under section 2.3 of this RFP must be certified as meeting ICBI software standards.

The Type 1 reserve study engagement shall include the following:

- Component identification and inventory of all common elements meeting the criteria of the Association's reserve policy
- Component Condition Assessment based upon an on-site visual observation
- Useful Life and Remaining Life estimates for common area components

- Component quantities
- Current replacement costs for common area components
- Current reserve fund status report with percent funded analysis
- Recommended 30 year funding plan

2.3 - Deliverables - Services to be provided by Consultant

The successful proposer must perform the on-site analysis of components during the time period _____ to _____.

The successful proposer must provide a draft report by _____. Report may be in electronic format, preferably Adobe Acrobat. A paper report is not required. Association is allowed to make three revisions to this report within thirty days of receipt of report without any additional charges. Association understands that it may incur additional charges for revisions required by the reserve study company after the thirty day period has expired. Because this is a Reserve Management Plan engagement, Association and the reserve study company shall jointly devise the thirty year funding plan.

The successful proposer must provide software, or access to online software when the final report is accepted, or at any earlier date beginning with the date delivery of the draft report, at the request of the Association. Proposer must provide software training and technical support to Association staff or management sufficient to allow staff to update the reserve plan on an ongoing basis. Software capabilities must include:

- Perform updates or make modifications that will automatically revise the 30-year funding cycle.
- Provide ability to add additional information and images for each component
- Ability of funding plan to disclose the dollar amount and percent funded for each year of the 30-year funding cycle.
- Include the estimated interest earned and inflation as part of the funding plan
- Calculate the annual contribution per owner and the % change in the annual reserve funding contribution.
- Ability to perform “what if” calculations and compare assumptions
- If a timeshare association – the ability to provide component inventory by unit as required by ICBI software standards.

Proposer may be required to make a presentation to the Association, either in person or in the form of a Skype video conference.

Right of Inspection - The successful proposer shall be required to retain all supporting documents prepared in accordance with this reserve study engagement, including records of professional time spent, after delivery of the required reports. The reserve study company agrees to allow Association staff to review such documents upon written request at any time during a three-year retention period.

2.4 – Engagement Terms and Conditions

The term of this engagement is limited to preparation of the Type 1 reserve study report for 2016. Association also requests a fee proposal for Type 3 reports (updates without an on-site analysis) for years 2017 and 2018. However, award of the current contract may include only the Type 1 report for 2016.

The successful bidder / contractor will be allowed to submit an invoice for 50% of the contract amount upon the signing of this agreement. The remaining 50% payment may be invoiced when the draft reserve study report is issued.

3 - Instruction to Proposers

3.1 - RFP Submission Requirements

Each Proposer shall meet all of the terms and conditions specified in this RFP. By submitting a proposal, the Proposer acknowledges agreement with the acceptance of all provisions of the RFP.

The written proposal should be submitted via email to the individual listed below. (Note that some jurisdictions or governing documents may require hard copy sealed bids. If so, satisfy those primitive individuals who have not yet even joined the twentieth century, much less the twenty-first century, by providing such hard copy bids)

3.2 – Deadline for submission of proposal

The complete bid package, including all attachments should be marked "Reserve Study Proposal" and emailed to _____ at _____, or, if hard copy, mailed or delivered to _____ no later than 5:00 PM on ____ Date.
Written proposals received after the above RFP Submission Deadline will not be accepted.

3.3 - Format and Content

The content and sequence of the proposal will be as follows:

- Cover Letter - A maximum one-page cover letter
- Table of Contents
- Executive Summary - This section should contain an outline of the firm's general approach, along with a brief statement of the most important features of the bid response.
- Reserve Study Approach - This section should contain the work plan.
- Proposer's Experience and Qualifications - Experience, educational background, demonstrated capability, and availability of qualified full-time key technical and management personnel who will be assigned to the engagement. This should include a list of professional organizations, indication of familiarity with state law
- References - Three references should be given, listing contact, organization, phone number and email address.
- Fee proposal, including Software cost, cost for any revisions beyond the thirty day period after submission of report, fee proposal for Type 3 updates
- Other items – This should include a statement that the proposer is independent of the association, or describe any other services provided to the Association, a statement of

independence from the developer (if applicable), a listing / description of any information that will be required from the Association, and identification of the point of contact for future correspondence. Proposers are not required to submit a sample report, since they must follow ICBI reporting formats, but may submit examples of supplement schedules that they intend to include as supplemental information to the reserve study report.

4 - Selection of Consultant

A committee comprised of Association staff will evaluate the proposals on the basis of experience, qualifications, the proposer's approach to the project, and any other innovative ideas you have for making the project progress efficiently.

Reserve study companies will be objectively evaluated based on their responses to the project scope outlined in the RFP. The written proposal should clearly demonstrate how the firm could best satisfy the requirements of the Association. During the evaluation period, the Association Staff / Management may elect to interview some or all the proposing firms. This may be an "in person" interview or may be conducted via Skype video conference. The individual who will be directly responsible for carrying out the contract, once the contract is awarded, should be present at the oral interview.

Although price for the services will be an important part of the consideration for award of the project, the Association will consider the proposer's qualifications, expertise and level of professional service and advice in the award of the project.

The Association may also contact and evaluate the proposer's references, contact any proposer to clarify any response, and seek and review any other information deemed pertinent to the evaluation process.

The final selection will be the reserve study company which, in the Association's opinion, is the most responsive and responsible, meets the Association's requirements in providing this service, and is in the Association's best interest. The Association maintains the sole and exclusive right to evaluate the merits of the proposals received.

5 - Proposal Review Process and Schedule - Evaluation and Award Process

The following is an outline of the anticipated schedule for proposal review and contract award:

RFPs to be emailed to prospective firms	Date
Deadline for final proposals to be received by Association	Date
Notify firms selected for interview process, if necessary	Date
Interview Firms	Date
Award Contract	Date
Draft Report delivered	Date
Final study conducted/Study Session	Date

The Association reserves the right to postpone the Submittal Deadline and opening of proposals any time before the date and time announced in the Request for Proposals or subsequent addenda.

The Association reserves the right to waive non-substantial irregularities in any proposal, to reject any or all proposals, to reject or delete one part of a proposal and accept the other, except to the extent that proposals are qualified by specific limitations.

The Association also reserves the right to reject the Proposal of any Proposer who previously failed to perform adequately for the Association.

6 - Standard Terms Applicable to All Proposals

Acceptance Period – Unless otherwise specified herein, proposals are firm for a period of ninety (60) days. Time frame may be longer depending on your needs.

Authorized Signatures – Every proposal must be signed by the person or persons legally authorized to bind the Proposer to a contract for the execution of the work. If a firm or partnership makes the proposal, the name and post office address of the firm or partnership and the signature of at least one of the general partners must be shown. If a corporation makes the proposal, the proposal shall identify the state under the laws of which the corporation is chartered, the name and post office address of the corporation and the title of the person signing on behalf of the corporation.

Proposal Retention – The Association reserves the right to retain all proposals for a period of ninety (90) days for examination and comparison.

Cancellation of RFP – The Association may cancel this RFP at any time.

Compliance with Laws – All proposals shall comply with current federal, state, and other laws relative thereto.

RFP Documents, Examination of – It is the responsibility of the Proposer to carefully and thoroughly examine the documents contained in this RFP. Proposer shall satisfy himself as to the character, quantity, and quality of work to be performed and materials, labor, supervision or equipment necessary to perform the work as specified by this RFP. The failure or neglect of the Proposer to examine the RFP Documents shall in no way relieve him from any obligations with respect to this RFP. The submission of a proposal shall constitute an acknowledgment upon which the Association may rely that the Proposer has thoroughly examined and is familiar with the RFP and the project. No claim will be allowed for additional compensation that is based upon a lack of knowledge of any solicitation document.

Cost of Proposal – The Association is not liable for any costs incurred by Proposers before entering into a formal contract. Costs of developing the proposals or any other such expenses incurred by the Proposer in responding to the RFP, are entirely the responsibility of the Proposer.

Disqualification of Proposer – If there is reason to believe that collusion exists among the Proposers, the Association may refuse to consider proposals from participants in such collusion. No person, firm, or corporation under the same or different name, shall make, file, or be interested in more than one proposal for the same work unless alternate proposals are called for. A person, firm, or corporation who has submitted a sub-Proposal to a Proposer, or who has quoted prices on materials to a Proposer, is not thereby disqualified from submitting a sub-Proposal or quoting

prices to other Proposers. Reasonable grounds for believing that any Proposer has an interest in more than one Proposal for the same work will cause the rejection of all Proposals for the work in which a Proposer has an interest. If there is reason to believe that collusion exists among the Proposers, the Association may refuse to consider Proposals from participants in such collusion. Proposers shall submit as part of their Proposal a statement declaring there is no collusion by proposer.

Execution of Agreement – The Successful Proposer will be required to execute an agreement in accordance with the terms and conditions of this RFP

Conflict of Interest – Proposer covenants that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services hereunder. Contractor certifies that to the best of his knowledge, no one who has or will have any financial interest under this contract is an officer or employee of the Association.

Questions and Comments – The Association will accept pre-submittal questions from RFP participants in the interest of clarity and complete responses to the RFP. The RFP participants are encouraged to cover all questions in one request so that Association staff can provide timely and effective responses.

All pre-submittal questions will only be accepted by email until Date. Responses to all questions will be emailed to all RFP participants. Any response will be in a form of an addendum and will be sent as promptly as is practical to all parties that have submitted or notified Association of intent to submit a proposal.

RFP questions are to be submitted to _____ at _____. In order to assure that the Association has one contact person per Reserve Study Company, please provide this contact information via email as early as possible. The Association will conclude that the Reserve Study firms that do not provide email contacts do not want to be included in Pre-Submittal information sharing.

Proposal Modifications – Any Proposer who wishes to make modifications to a proposal already received by the Association must withdraw his proposal and resubmit the proposal with the modifications. It is the responsibility of the Proposer to ensure that modified or withdrawn proposals are resubmitted before the Submittal Deadline.

Proposal Withdrawal – A Proposer may withdraw his proposal, without prejudice prior to the time specified for the proposal opening, by submitting a written request to the Association contact person identified above.

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15 – State Reserve Study Statutes

[1500 – Introduction](#)

[1501 – Summary of State Statutes](#)

[15.1 – Appendix – State Statutes](#)

1500 - Introduction

1500.1 - Several states have enacted legislation regarding reserve studies. In looking just at the states of Hawaii, California, Washington, Nevada, Utah, Delaware, and Florida, a wide diversity of outcomes is evidenced. As a CPA, RS, and PRA, it is frustrating to see the misuse of terms, creation of undefined terms, requirements for disclosures of useless information, and just plain incorrect calculations that have made their way into statutes.

1500.2 - In large part, this is a result of the states not having any substantial guidance. Consequently, each set of statutes is usually constructed from scratch. Those who testify at hearings as the legislation is being produced almost always have private agendas, and there is no persuasive argument to offset private demands, no matter how outlandish, simply because no reasonable, comprehensive set of standards existed prior to the adoption of the ICBI (International Capital Budgeting Institute) standards in early 2015.

1500.3 - Two things are relatively consistent throughout the various states' statutes: (1) the intent for protection of the public consumer, and (2) due to special interest manipulation and lack of knowledge about the reserve study process, the statutes often seem to work actively against the use of common sense in preparation of reserve studies. Below we look at statutes for each state. The authors comment on certain of the statutes or sections thereof to clarify or highlight specific issues.

1501 – Summary of State Statutes

1501.1 – **Alabama** - The state of Alabama has adopted specific statutes related to reserve studies, which are set forth in sections 35-8A-302 of the state's civil statutes. Those statutes generally provide that "the association may assess and collect funds and may pay for common expenses and limited common expenses out of such funds as are appropriate." Section 35-8A-403(5) requires disclosure of reserves in offering statements. See [Appendix 15.1.1](#) for full text of law.

1501.2 – **Alaska** - The state of Alaska has adopted specific statutes related to reserve studies, which are set forth in sections 34.08.320 of the state's civil statutes. Those statutes generally provide that the association may adopt and amend budgets for reserves and assess and impose

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funds for common expenses. Section 34.08.530(5) requires disclosure of reserves in offering statements, including assumptions concerning the calculation of the amount of reserves certified by a certified architect or engineer. See [Appendix 15.1.2](#) for full text of law.

1501.3 – Arizona - The state of Arizona has adopted general budget and disclosure laws, but no direct requirement for reserve studies. Those statutes generally provide that the association may adopt and amend budgets for reserves and assess and impose funds for common expenses. Disclosure of reserves is required in offering statements. No other specific criteria are mentioned. See [Appendix 15.1.3](#) for full text of law.

Section 10-3830 requires directors of nonprofit corporations to discharged duties in good faith, with the level of care that an ordinarily prudent person in a like position would exercise under similar circumstances, and in a manner the director reasonably believes to be in the best interests of the corporation.

1501.4 – Arkansas - The state of Arkansas has not adopted any specific statutes related to reserve study performance, disclosures, or funding requirements.

1501.5 – California - The state of California was one of the first to adopt reserve study laws, with disclosure requirements dating to 1983. The requirement to perform reserve studies was adopted much later. There is no funding requirement contained in California statutes, but case law does require funding, although no specific amount or percentage is required. California reserve study requirements are set forth in the Davis-Stirling Common Interest Development Act, sections 5550 through 5580.

Sections 5550 through 5580 establish the overall requirements for reserve planning.

Sections 5570 establishes the budgetary reserve disclosure requirements.

Section 5550 establishes performance standards. These standards require a visual site inspection every three years.

California has established reserve study performance and disclosure requirements, but has not established any minimum funding requirements. The law does require disclosure of the funding plan, and also whether or not any special assessments are planned as any part of the 30-year funding plan. See [Appendix 15.1.5](#) for full text of law.

1501.6 – Colorado - The state of Colorado has not adopted statutes requiring performance of reserve studies, but has statutes requiring the adoption of a policy regarding reserves, and to identify how it proposes to pay for repairs and replacements. Without stating so specifically, this effectively is a requirement for preparation of reserve studies. See [Appendix 15.1.6](#) for full text of law.

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1501.7 – **Connecticut** - Condominium associations are required to provide in the proposed budget for adequate (which is not a defined term) reserves for capital expenditures. All common interest community executive boards are required to adopt an annual proposed budget and provide to all unit owners a summary of the budget, including a statement of the amount of any reserves, and a statement of the basis on which such reserves are calculated and funded. Section 828-47-264 requires disclosure of reserves in offering statements. See [Appendix 15.1.7](#) for full text of law.

1501.8 – **Delaware** - The state of Delaware has adopted specific statutes related to reserve studies, which are set forth in sections 81-315, 81-318 and 81-324 of the state’s civil statutes. The statutes require the declarant to “fully fund” (that term is not defined) reserves until the association makes its first assessment. The annual budget is required to include as a line item a payment into the repair and replacement reserve sufficient to achieve the level of funding noted in the reserve study, or maintain said reserve at such level. Specific components are required to be included in the reserve study. See [Appendix 15.1.8](#) for full text of law.

1501.9 - **District of Columbia** - The District of Columbia statutes authorize a board to adopt a budget that includes reserves, and requires disclosure of amount of reserve, or a statement that no reserves exist. See [Appendix 1501.9](#) for full text of law.

1501.10 – **Florida** - The state of Florida describes the responsibilities of the Board of Directors of a condominium association to budget for and determine reserve accounts for capital expenditures and deferred maintenance for which the association is responsible. Condominium statutes are set forth in Section 718 of the Florida Code. Homeowners association statutes are set forth in section 720 of the Florida code. See [Appendix 15.1.10](#) for full text of law.

1501.11 – **Georgia** - The state of Georgia has not adopted any specific statutes related to reserve studies.

1501.12 – **Hawaii** - The state of Hawaii has adopted specific statutes related to reserve studies, which are set forth in section 514B-148 of the Hawaii Condominium Act. The statutes require that an association include reserves in its annual budget, fund reserves at a minimum of 50%, and include all components with a replacement cost of \$10,000 or more. See [Appendix 15.1.12](#) for full text of law.

1501.13 – **Idaho** - The state of Idaho has not adopted any specific statutes related to reserve studies.

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1501.14 – **Illinois** - Associations are required to provide members with a budget that includes a provision for “reasonable” (an undefined term) reserves. If governing documents do not require establishment of a reserve fund or preparation of a reserve study, an association may elect to waive the reserve study requirement by a vote of 2/3 of the members. See [Appendix 15.1.14](#) for full text of law.

1501.15 – **Indiana** - Associations are required establish and maintain a reserve fund, but do not have a specific requirement to prepare a reserve study. See [Appendix 15.1.15](#) for full text of law.

1501.16 – **Iowa** - The state of Iowa has not adopted any specific statutes related to reserve studies.

1501.17 – **Kansas** - The state of Kansas has not adopted any specific statutes related to reserve studies.

1501.18 – **Kentucky** - The Kentucky Condominium Act section 381.870 requires all members to contribute to reserves, but does not specifically require a reserve study. Reserve disclosures are required on sale of unit. See [Appendix 15.1.18](#) for full text of law.

1501.19 – **Louisiana** – Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.19](#) for full text of law.

1501.20 – **Maine** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.20](#) for full text of law.

1501.21 – **Maryland** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.21](#) for full text of law.

1501.22 – **Massachusetts** - Associations required to establish a reserve fund. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.22](#) for full text of law.

1501.23 – **Michigan** - Associations required to establish a reserve fund with a minimum balance of 10% of the annual budget. However, there is no specific requirement to prepare a reserve study. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.23](#) for full text of law.

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1501.24 – **Minnesota** – The statutes authorize establishment of a budget, including reserves, and require an annual report with reserve disclosures. Annual reserve assessments must be “adequate” (an undefined term), and reserves must be reevaluated at least every third year. See [Appendix 15.1.24](#) for full text of law.

1501.25 – **Mississippi** - The state of Mississippi has not adopted any specific statutes related to reserve studies.

1501.26 – **Missouri** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. Section 448.3-102.1 of the state statute simply states that reserves are required in the budget and that they must be disclosed upon the sale and the resale of the units. See [Appendix 15.1.26](#) for full text of law.

1501.27 – **Montana** - The state of Montana has not adopted any specific statutes related to reserve studies.

1501.28 – **Nebraska** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.28](#) for full text of law.

1501.29 – **Nevada** - The state of Nevada has adopted specific statutes related to reserve studies, which are set forth in section NRS 116.31152 of the state’s civil statutes. Those statutes generally provide that a reserve study be conducted at least every 5 years. It must be reviewed and studied annually to determine sufficient funds. The Nevada Administrative Code (NAC) requires disclosures and that the reserve study be submitted to the Nevada State Commission. See [Appendix 15.1.29](#) for full text of law.

1501.30 - **New Hampshire** - Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.30](#) for full text of law.

1501.31 - **New Jersey** – The New Jersey Condominium Act provides that the association may levy and collect assessments, and that, for investment purposes only, reserve funds may be commingled with operating funds of the association. Commingled operating and reserve funds shall be accounted for separately, and a commingled account shall not, at any time, be less than the amount identified as reserve funds. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.31](#) for full text of law.

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1501.32 - **New Mexico** - The New Mexico Condominium Act is set forth in Chapter 47, Article 7 of the New Mexico Administrative Code. Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.32](#) for full text of law.

1501.33 - **New York** – Cooperative corporations are required to set aside reasonable sums for reserves. There are no specific requirements for condominiums or homeowners associations. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.33](#) for full text of law.

1501.34 - **North Carolina** - Associations may adopt budgets, including reserves and collect assessments for common expenses from unit owners. Public offering statements must include disclosures regarding reserves. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.34](#) for full text of law.

1501.35 - **North Dakota** - The state of North Dakota has not adopted any specific statutes related to reserve studies.

1501.36 – **Ohio** - Associations are required to adopt budgets for revenues, expenditures, and reserves in an amount “adequate” (an undefined term) to repair and replace major capital items in the normal course of operations without the need for special assessments. The annual reserve assessment shall not be less than 10% of the budget for that year unless the reserve requirement is waived annually by a majority of the unit owners. While this does not specifically require the performance of a reserve study, the requirement to adopt a reserve budget essentially does the same thing. We believe it is appropriate for Ohio associations to perform reserve studies periodically, and recommend a 3-year cycle as the appropriate period. See [Appendix 15.1.36](#) for full text of law.

1501.37 – **Oklahoma** - The state of Oklahoma has not adopted any specific statutes related to reserve studies.

1501.38 – **Oregon** - Association or declarant is required to conduct an initial reserve study, prepare an initial maintenance plan and establish a reserve account. A reserve account should include all components of common property which will normally require major maintenance, repair or replacement, within 30 years. The board of directors shall annually conduct a reserve study or review and update an existing study to determine the reserve account requirements. The board of directors, with the approval of 75% of owners, may elect not to fund the reserve account for the following year. See [Appendix 15.1.38](#) for full text of law.

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1501.39 – **Pennsylvania** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.39](#) for full text of law.

1501.40 - **Rhode Island** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. Public offering statements for condominiums must disclose a budget detailing the amount of reserves sufficient for painting exterior surfaces, replacing roofing, resurfacing roadways or other items subject to declaration. Must also disclose itemized life spans for common elements and expected impact on assessments. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.40](#) for full text of law.

1501.41 - **South Carolina** - The state of South Carolina has not adopted any specific statutes related to reserve studies.

1501.42 - **South Dakota** - The state of South Dakota has not adopted any specific statutes related to reserve studies.

1501.43 – **Tennessee** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.43](#) for full text of law.

1501.44 – **Texas** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.44](#) for full text of law.

1501.45 – **Utah** - The state of Utah legislature passed a law mandating the completion of a reserve study at least every six years and update every three years for all Utah condominium and homeowners associations. See [Appendix 15.1.45](#) for full text of law.

1501.46 – **Vermont** - Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.46](#) for full text of law.

1501.47 – **Virginia** - Associations are required to conduct a reserve study at least once every five years. The board of directors must review the study at least annually and make adjustments as the board determines to keep the funding of reserves sufficient. Resale certificates must include the current reserve study report or a summary thereof and a statement of the status and amount of any reserve or replacement fund and any portion of the fund designated for any specified project by the association. See [Appendix 15.1.47](#) for full text of law.

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1501.48 – **Washington** – Associations are encouraged to establish a reserve account and prepare a reserve study. The reserve study shall be updated annually, and a site analysis performed every three years. Specific components including roofing, painting, paving, decks, siding, plumbing, windows, and any other reserve component that would cost more than one percent of the annual budget for major maintenance, repair, or replacement must be included in the reserve study. The reserve study must disclose the percent funded and contribution rates under three separate plans, a recommended rate, a full funding plan, and a baseline funding plan. A specific disclosure is required to be included in the reserve study report. (RCW 64.34.382). See [Appendix 15.1.48](#) for full text of law.

1501.49 - **West Virginia** – Associations may adopt a budget that includes reserves. Reserve disclosures are required on sale of a unit. However, there is no specific requirement to prepare a reserve study. See [Appendix 15.1.49](#) for full text of law.

1501.50 – **Wisconsin** – Section 703.163 provides that an association may, with a vote of a majority of the members, create or terminate a statutory reserve account. There is no statutory requirement to conduct a reserve study and no statutory requirement to fund reserves. See [Appendix 15.1.50](#) for full text of law.

1501.51 – **Wyoming** - The state of Wyoming has not adopted any specific statutes related to reserve studies.

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15 – State Reserve Study Statutes

15.1 – Appendix – State Statutes

15.1.1 – Alabama

Section 35-8A-302 - Powers of unit owners' association.

- (a) Except as provided in subsection (b), and subject to the provisions of the declaration, the association may:
- (2) Adopt and amend budgets for revenues, expenditures, and reserves and impose and collect assessments for common expenses from unit owners;
- (6) Regulate the use, maintenance, repair, replacement, and modification of common elements;
- (7) Cause additional improvements to be made as a part of the common elements;

Section 35-8A-403 - Offering Statement – General Provisions

- (a) Except as provided in subsection (b), an offering statement must contain or fully and accurately disclose:
 - (5) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumption concerning occupancy. The budget must include, without limitation:
 - a. A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement;
 - b. A statement of any other reserves;
 - c. The projected common expense assessment by category of expenditures for the association; and
 - d. The projected monthly common expense assessment for each type of unit;

15.1.2 – Alaska

AS 34.08.320. Powers of Unit Owners' Association.

- (a) Except as provided in (b) of this section and subject to the provisions of the declaration, the association may:
 - (1) adopt and amend bylaws and rules and regulations;
 - (2) adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;

AS 34.08.530. Public Offering Statements Generally.

- (a) Except as provided in (b) of this section, a public offering statement must fully and accurately contain or disclose
 - (5) any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a

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purchaser, and the current budget of the association, the name of the person who prepared the budget, and a statement of the budget's assumptions concerning occupancy, assumptions concerning the calculation of the amount of reserves certified by a certified architect or engineer, and inflation factors, including, without limitation,

(A) a statement of the amount included in the budget as a reserve for repairs and replacement including the estimated cost of repair or replacement cost and the estimated useful life of the asset to be repaired or replaced;

(B) a statement of any other reserves;

15.1.3 – Arizona

33-1242. Powers of unit owners' association; notice to unit owner of violation

A. Subject to the provisions of the declaration, the association may:

1. Adopt and amend bylaws and rules.
2. Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for common expenses from unit owners.

33-1255. Assessments for common expenses; applicability

C. Unless otherwise provided for in the declaration all of the following apply:

1. Any common expense associated with the maintenance, repair or replacement of a limited common element shall be equally assessed against the units to which the limited common element is assigned.

33-1260. Resale of units; information required; fees; civil penalty; applicability; definition

A. For condominiums with fewer than fifty units, a unit owner shall mail or deliver to a purchaser or a purchaser's authorized agent within ten days after receipt of a written notice of a pending sale of the unit, and for condominiums with fifty or more units, the association shall mail or deliver to a purchaser or a purchaser's authorized agent within ten days after receipt of a written notice of a pending sale that contains the name and address of the purchaser all of the following in either paper or electronic format:

(d) The total amount of money held by the association as reserves.

4. A copy of the current operating budget of the association.
6. A copy of the most recent reserve study of the association, if any.

33-1806. Resale of units; information required; fees; civil penalty; definition

A. For planned communities with fewer than fifty units, a member shall mail or deliver to a purchaser or a purchaser's authorized agent within ten days after receipt of a written notice of a pending sale of the unit, and for planned communities with fifty or more units, the

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association shall mail or deliver to a purchaser or a purchaser's authorized agent within ten days after receipt of a written notice of a pending sale that contains the name and address of the purchaser all of the following in either paper or electronic format:

(d) The total amount of money held by the association as reserves.

4. A copy of the current operating budget of the association.

5. A copy of the most recent annual financial report of the association. If the report is more than ten pages, the association may provide a summary of the report in lieu of the entire report.

6. A copy of the most recent reserve study of the association, if any.

15.1.4 – Arkansas – No specific reserve statutes.

15.1.5 – California

Reserve sections of Davis-Stirling Common Interest Development Act.

5550.

(a) At least once every three years, the board shall cause to be conducted a reasonably competent and diligent visual inspection of the accessible areas of the major components that the association is obligated to repair, replace, restore, or maintain as part of a study of the reserve account requirements of the common interest development, if the current replacement value of the major components is equal to or greater than one-half of the gross budget of the association, excluding the association's reserve account for that period. The board shall review this study, or cause it to be reviewed, annually and shall consider and implement necessary adjustments to the board's analysis of the reserve account requirements as a result of that review.

(b) The study required by this section shall at a minimum include:

(1) Identification of the major components that the association is obligated to repair, replace, restore, or maintain that, as of the date of the study, have a remaining useful life of less than 30 years.

(2) Identification of the probable remaining useful life of the components identified in paragraph (1) as of the date of the study.

(3) An estimate of the cost of repair, replacement, restoration, or maintenance of the components identified in paragraph (1).

(4) An estimate of the total annual contribution necessary to defray the cost to repair, replace, restore, or maintain the components identified in paragraph (1) during and at the end of their useful life, after subtracting total reserve funds as of the date of the study.

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(5) A reserve funding plan that indicates how the association plans to fund the contribution identified in paragraph (4) to meet the association's obligation for the repair and replacement of all major components with an expected remaining life of 30 years or less, not including those components that the board has determined will not be replaced or repaired.

5560.

(a) The reserve funding plan required by Section 5550 shall include a schedule of the date and amount of any change in regular or special assessments that would be needed to sufficiently fund the reserve funding plan.

(b) The plan shall be adopted by the board at an open meeting before the membership of the association as described in Article 2 (commencing with Section 4900) of Chapter 6.

(c) If the board determines that an assessment increase is necessary to fund the reserve funding plan, any increase shall be approved in a separate action of the board that is consistent with the procedure described in Section 5605.

5565.

The summary of the association's reserves required by paragraph (2) of subdivision (b) of Section 5300 shall be based on the most recent review or study conducted pursuant to Section 5550, shall be based only on assets held in cash or cash equivalents, shall be printed in boldface type, and shall include all of the following:

(a) The current estimated replacement cost, estimated remaining life, and estimated useful life of each major component.

(b) As of the end of the fiscal year for which the study is prepared:

(1) The current estimate of the amount of cash reserves necessary to repair, replace, restore, or maintain the major components.

(2) The current amount of accumulated cash reserves actually set aside to repair, replace, restore, or maintain major components.

(3) If applicable, the amount of funds received from either a compensatory damage award or settlement to an association from any person for injuries to property, real or personal, arising out of any construction or design defects, and the expenditure or disposition of funds, including the amounts expended for the direct and indirect costs of repair of construction or design defects. These amounts shall be reported at the end of the fiscal year for which the study is prepared as separate line items under cash reserves pursuant to paragraph (2). Instead of complying with the requirements set forth in this paragraph, an association that is obligated to issue a review of its financial statement pursuant to Section 5305 may include in the review a statement containing all of the information required by this paragraph.

(c) The percentage that the amount determined for purposes of paragraph (2) of subdivision (b) equals the amount determined for purposes of paragraph (1) of subdivision (b).

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(d) The current deficiency in reserve funding expressed on a per unit basis. The figure shall be calculated by subtracting the amount determined for purposes of paragraph (2) of subdivision (b) from the amount determined for purposes of paragraph (1) of subdivision (b) and then dividing the result by the number of separate interests within the association, except that if assessments vary by the size or type of ownership interest, then the association shall calculate the current deficiency in a manner that reflects the variation.

5570.

(a) The disclosures required by this article with regard to an association or a property shall be summarized on the following form:

(5) All major components are included in the reserve study and are included in its calculations.

(6) Based on the method of calculation in paragraph (4) of subdivision (b) of Section 5570, the estimated amount required in the reserve fund at the end of the current fiscal year is \$____, based in whole or in part on the last reserve study or update prepared by ____ as of ____ (month), ____ (year). The projected reserve fund cash balance at the end of the current fiscal year is \$____, resulting in reserves being ____ percent funded at this date.

If an alternate, but generally accepted, method of calculation is also used, the required reserve amount is \$____. (See attached explanation)

(7) Based on the method of calculation in paragraph (4) of subdivision (b) of Section 5570 of the Civil Code, the estimated amount required in the reserve fund at the end of each of the next five budget years is \$____, and the projected reserve fund cash balance in each of those years, taking into account only assessments already approved and other known revenues, is \$____, leaving the reserve at ____ percent funding. If the reserve funding plan approved by the association is implemented, the projected reserve fund cash balance in each of those years will be \$____, leaving the reserve at ____ percent funding.

Note: The financial representations set forth in this summary are based on the best estimates of the preparer at that time. The estimates are subject to change. At the time this summary was prepared, the assumed long-term before-tax interest rate earned on reserve funds was ____ percent per year, and the assumed long-term inflation rate to be applied to major component repair and replacement costs was ____ percent per year.

(b) For the purposes of preparing a summary pursuant to this section:

(1) “Estimated remaining useful life” means the time reasonably calculated to remain before a major component will require replacement.

(2) “Major component” has the meaning used in Section 5530. Components with an estimated remaining useful life of more than 30 years may be included in a study as a capital asset or disregarded from the reserve calculation, so long as the decision is revealed in the reserve study report and reported in the Assessment and Reserve Funding Disclosure Summary.

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(3) The form set out in subdivision (a) shall accompany each annual budget report or summary thereof that is delivered pursuant to Section 5300. The form may be supplemented or modified to clarify the information delivered, so long as the minimum information set out in subdivision (a) is provided.

(4) For the purpose of the report and summary, the amount of reserves needed to be accumulated for a component at a given time shall be computed as the current cost of replacement or repair multiplied by the number of years the component has been in service divided by the useful life of the component. This shall not be construed to require the board to fund reserves in accordance with this calculation.

5580.

(a) Unless the governing documents impose more stringent standards, any community service organization whose funding from the association or its members exceeds 10 percent of the organization's annual budget shall prepare and distribute to the association a report that meets the requirements of Section 5012 of the Corporations Code, and that describes in detail administrative costs and identifies the payees of those costs in a manner consistent with the provisions of Article 5 (commencing with Section 5200) of Chapter 6.

(b) If the community service organization does not comply with the standards, the report shall disclose the noncompliance in detail. If a community service organization is responsible for the maintenance of major components for which an association would otherwise be responsible, the community service organization shall supply to the association the information regarding those components that the association would use to complete disclosures and reserve reports required under this article and Section 5300. An association may rely upon information received from a community service organization, and shall provide access to the information pursuant to the provisions of Article 5 (commencing with Section 5200) of Chapter 6.

15.1.6 – Colorado

HOUSE BILL 09-1359

Session Laws of Colorado 2009

First Regular Session, 67th General Assembly

CHAPTER 257

PROPERTY

HOUSE BILL 09-1359

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DIGEST - H.B. 09-1359 Common interest communities - governance - executive board - communications - finances - reserve studies. Requires all members of the executive board of a common interest community's unit owners' association (HOA) to have available to them all relevant information related to the HOA's operation. Establishes the same standards for election or appointment as a chair of an HOA committee to which authority may be delegated as apply to the election or appointment of members on the executive board.

Requires an HOA to adopt a policy concerning when and how reserve studies shall be done and to identify how it proposes to pay for scheduled repair or replacement of portions of the community that the HOA controls.

APPROVED by Governor May 15, 2009
EFFECTIVE August 5, 2009

BY REPRESENTATIVE(S) Kerr A., Peniston, Waller; also SENATOR(S) Boyd.

AN ACT

CONCERNING THE GOVERNANCE OF COMMON INTEREST COMMUNITIES UNDER THE "COLORADO COMMON INTEREST OWNERSHIP ACT".

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 38-33.3-209.5 (1) (b), Colorado Revised Statutes, is amended BY THE ADDITION OF A NEW SUBPARAGRAPH to read:

(IX) When the association has a reserve study prepared for the portions of the community maintained, repaired, replaced, and improved by the association; whether there is a funding plan for any work recommended by the reserve study and, if so, the projected sources of funding for the work; and whether the reserve study is based on a physical analysis and financial analysis. For the purposes of this subparagraph (IX), an internally conducted reserve study shall be sufficient.

SECTION 2. 38-33.3-303 (1) and (3), Colorado Revised Statutes, are amended to read:

38-33.3-303. Executive board members and officers - powers and duties - reserve funds - reserve study - audit. (1) (a) Except as provided in the declaration, the bylaws, or subsection (3) of this section or any other provisions of this article, the executive board may act in all instances on behalf of the association.

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SECTION 4. 38-33.3-117 (1.5) (h), Colorado Revised Statutes, is amended, and the said 38-33.3-117 is further amended BY THE ADDITION OF A NEW SUBSECTION, to read:

38-33.3-117. Applicability to preexisting common interest communities. (1.5) Except as provided in section 38-33.3-119, the following sections shall apply to all common interest communities created within this state before July 1, 1992, with respect to events and circumstances occurring on or after January 1, 2006:

(h) ~~38-33.3-303 (4) (b)~~ 38-33.3-303 (1) (b), (3) (b), AND (4) (b);

(1.7) Except as provided in section 38-33.3-119, section 38-33.3-209.5 (1) (b) (IX) shall apply to all common interest communities created within this state before July 1, 1992, with respect to events and circumstances occurring on or after July 1, 2010.

SECTION 5. Act subject to petition - effective date - applicability. (1) This act shall take effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly that is allowed for submitting a referendum petition pursuant to article V, section 1 (3) of the state constitution, (August 5, 2009, if adjournment sine die is on May 6, 2009); except that, if a referendum petition is filed against this act or an item, section, or part of this act within such period, then the act, item, section, or part, if approved by the people, shall take effect on the date of the official declaration of the vote thereon by proclamation of the governor.

(2) The provisions of this act shall apply to acts occurring on or after the applicable effective date of this act.

Approved: May 15, 2009

TITLE 38. PROPERTY - REAL AND PERSONAL

REAL PROPERTY

ARTICLE 33.3. COLORADO COMMON INTEREST OWNERSHIP ACT

PART 2. CREATION, ALTERATION, AND TERMINATION OF COMMON INTEREST COMMUNITIES

C.R.S. **38-33.3-209.5** (2011)

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38-33.3-209.5. Responsible governance policies - due process for imposition of fines

(1) To promote responsible governance, associations shall:

(IX) When the association has a reserve study prepared for the portions of the community maintained, repaired, replaced, and improved by the association; whether there is a funding plan for any work recommended by the reserve study and, if so, the projected sources of funding for the work; and whether the reserve study is based on a physical analysis and financial analysis. For the purposes of this subparagraph (IX), an internally conducted reserve study shall be sufficient.

The unit owners' associations may adopt and amend budgets for revenues, expenditures, and reserves and impose and collect assessments for common expenses from unit owners. Section 38-33.3-302.

There is no statutory requirement to conduct a reserve study and no statutory requirement to fund reserves.

15.1.7 – Connecticut

Connecticut Condominium Act

Sec. 825-47-88e. Reserves for capital expenditures.

Any declarant of a conversion condominium shall provide in the proposed budget for the condominium adequate reserves for capital expenditures.

Common Interest Ownership Act

Sec. 828-47-261e. Adoption of budgets. Special assessments. Loan agreements.

(a) The executive board, at least annually, shall adopt a proposed budget for the common interest community for consideration by the unit owners. Not later than thirty days after the adoption of a proposed budget, the executive board shall provide to all unit owners a summary of the budget, including a statement of the amount of any reserves, and a statement of the basis on which such reserves are calculated and funded. Simultaneously, the board shall set a date not less than ten days or more than sixty days after providing the summary for either a meeting of the unit owners or a vote by ballot without a meeting to consider approval

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(b) of the budget. If, at that meeting or in the vote by ballot, a majority of all unit owners or any larger number specified in the declaration votes to reject the budget, the budget shall be rejected. If, at that meeting or in the vote by ballot, a majority of all unit owners or any larger number specified in the declaration does not vote to reject the budget, the budget shall be approved. The absence of a quorum at such meeting or participating in the vote by ballot shall not affect rejection or approval of the budget. If a proposed budget is rejected, the budget last approved by the unit owners continues until unit owners approve a subsequent budget.

Sec. 828-47-264. Public offering statement. General provisions and requirements.

(a) Except as provided in subsection (b) of this section, a public offering statement shall contain or fully and accurately disclose:

(5) A projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget shall include, without limitation: (A) A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement; (B) a statement of any other reserves; (C) the projected common expense assessment by category of expenditures for the association; and (D) the projected monthly common expense assessment for each type of unit.

15.1.8 – Delaware

Section 81-315 - Assessments for Common Expenses

(a)(1) Until the association is validly established pursuant to this chapter and makes a common expense assessment, the declarant shall pay all common expenses together, in the case of a condominium or cooperative, with all sums necessary to fully fund the repair and replacement reserve until the association makes its first assessment.

(2) After an assessment has been made by the association, assessments must be made at least annually, based on a budget adopted at least annually by the association. In the case of a condominium or cooperative, the budget shall include as a line item a payment into the repair and replacement reserve sufficient to achieve the level of funding noted in the reserve study.

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or maintain said reserve at such level. The minimum percentage of the annual budget of a condominium or cooperative that must be assigned to the repair and replacement reserve will depend upon how many of the following components and systems are to be maintained, repaired and replaced by the executive board: (i) 1 or more hallways, (ii) 1 or more stairwells, (iii) 1 or more management or administrative offices, (iv) 1 or more roofs, (v) 1 or more windows, (vi) 1 or more exterior walls, (vii) 1 or more elevators, (viii) 1 or more HVAC systems, (ix) 1 or more swimming pools, (x) 1 or more exercise facilities, (xi) 1 or more clubhouses, (xii) 1 or more parking garages (but not including surface parking lots), (xiii) 1 or more masonry bridges used by motor vehicles, (xiv) 1 or more bulkheads, and (xv) 1 or more docks. In the event that the executive board is responsible for the maintenance, repair and replacement of 4 or more of the above-described systems or components, the minimum percentage of the annual budget that must be assigned to the repair and replacement reserve is 15%; if the responsibility extends to only 3 of the above-described systems and components, the minimum percentage is 10%; and if the responsibility extends to only 2 or fewer of the above-described systems and components, the minimum percentage is 5%. In the event that the association's accountant certifies that the funds in the repair and replacement reserve are in excess of the sum required to constitute a fully funded repair and replacement reserve, the executive board shall refund or credit the surplus of the excess sum to the unit owners. In the event that the association does not have a current reserve study as required by this chapter, the minimum percentages of the association's budget to be assigned to the repair and replacement reserve shall be the percentages prescribed in this paragraph (a)(2) of this section.

Section 81-318 - Association records

The association shall maintain the following records in written form or in another form capable of conversion into written form within a reasonable time: (1) Detailed records of receipts and expenditures affecting the operation and administration of the association and other appropriate accounting records, including those for the repair and replacement reserve.

Section 81-324 Adoption of Budget

The executive board shall, at least annually, prepare a proposed budget for the common interest community. In a condominium or cooperative, the proposed budget shall include a

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line item for any required funding of a repair and replacement reserve. Within 30 days after adoption of any proposed budget after the period of declarant control, the executive board shall provide to all unit owners a summary of the budget, including any reserves and a statement of the basis on which any reserves are calculated and funded.

15.1.9 - District of Columbia

Section 42-1903.08 - Unit owners' associations; powers and rights; deemed attorney-in-fact to grant and accept beneficial easements.

(a) (2) Power to adopt and amend a budget for revenues, expenditures, and reserves, and collect assessments for common expenses from unit owners;

Section 42-1904.04 - Public offering statement; form prescribed by Mayor; contents; use in promotions; material change in information and amendment of statement.

(5) A copy of the condominium instruments, with a brief narrative statement describing each and including:

(D) A statement of the amount, or a statement that there is no amount, included in the projected budget as a reserve for repairs and replacement;

15.1.10 – Florida

718.111 (13) FINANCIAL REPORTING.—Within 90 days after the end of the fiscal year, or annually on a date provided in the bylaws, the association shall prepare and complete, or contract for the preparation and completion of, a financial report for the preceding fiscal year. Within 21 days after the final financial report is completed by the association or received from the third party, but not later than 120 days after the end of the fiscal year or other date as provided in the bylaws, the association shall mail to each unit owner at the address last furnished to the association by the unit owner, or hand deliver to each unit owner, a copy of the financial report or a notice that a copy of the financial report will be mailed or hand delivered to the unit owner, without charge, upon receipt of a written request from the unit owner. The division shall adopt rules setting forth uniform accounting principles and standards to be used by all associations and addressing the financial reporting requirements for multicondominium associations. The rules must include, but not be limited to, standards for presenting a summary of association reserves, including a good faith estimate disclosing the annual amount of reserve funds that would be necessary for the association to fully fund reserves for each reserve item based on the straight-line accounting method. This disclosure is not applicable to reserves funded via the pooling method.

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718.112 (f) Annual Budget

1. The proposed annual budget of common expenses shall be detailed and shall show the amounts budgeted by accounts and expense classifications, including, if applicable, but not limited to, those expenses listed in s. 718.504(21). A multi-condominium association shall adopt a separate budget of common expenses for each condominium the association operates and shall adopt a separate budget of common expenses for the association. In addition, if the association maintains limited common elements with the cost to be shared only by those entitled to use the limited common elements as provided for in s. 718.113(1), the budget or a schedule attached thereto shall show amounts budgeted therefor. If, after turnover of control of the association to the unit owners, any of the expenses listed in s. 718.504(21) are not applicable, they need not be listed.

2-a. In addition to annual operating expenses, the budget must include reserve accounts for capital expenditures and deferred maintenance. These accounts must include, but are not limited to, roof replacement, building painting, and pavement resurfacing, regardless of the amount of deferred maintenance expense or replacement cost, and any other item that has a deferred maintenance expense or replacement cost that exceeds \$10,000. The amount to be reserved must be computed using a formula based upon estimated remaining useful life and estimated replacement cost or deferred maintenance expense of each reserve item. The association may adjust replacement reserve assessments annually to take into account any changes in estimates or extension of the useful life of a reserve item caused by deferred maintenance. This subsection does not apply to an adopted budget in which the members of an association have determined, by a majority vote at a duly called meeting of the association, to provide no reserves or less reserves than required by this subsection.

b. Before turnover of control of an association by a developer to unit owners other than a developer pursuant to s. 718.301, the developer may vote the voting interests allocated to its units to waive the reserves or reduce the funding of reserves through the period expiring at the end of the second fiscal year after the fiscal year in which the certificate of a surveyor and mapper is recorded pursuant to s. 718.104(4)(e) or an instrument that transfers title to a unit in the condominium which is not accompanied by a recorded assignment of developer rights in favor of the grantee of such unit is recorded, whichever occurs first, after which time reserves may be waived or reduced only upon the vote of a majority of all nondeveloper voting interests voting in person or by limited proxy at a duly called meeting of the association. If a meeting of the unit owners has been called to determine whether to waive or reduce the funding of reserves and no such result is achieved or a quorum is not attained, the reserves included in the budget shall go into effect. After the turnover, the developer may vote its voting interest to waive or reduce the funding of reserves.

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3. Reserve funds and any interest accruing thereon shall remain in the reserve account or accounts, and shall be used only for authorized reserve expenditures unless their use for other purposes is approved in advance by a majority vote at a duly called meeting of the association. Prior to turnover of control of an association by a developer to unit owners other than the developer pursuant to s. 718.301, the developer-controlled association shall not vote to use reserves for purposes other than that for which they were intended without the approval of a majority of all non-developer voting interests, voting in person or by limited proxy at a duly called meeting of the association.

720.303 (6) BUDGETS.—

(a) The association shall prepare an annual budget that sets out the annual operating expenses. The budget must reflect the estimated revenues and expenses for that year and the estimated surplus or deficit as of the end of the current year. The budget must set out separately all fees or charges paid for by the association for recreational amenities, whether owned by the association, the developer, or another person. The association shall provide each member with a copy of the annual budget or a written notice that a copy of the budget is available upon request at no charge to the member. The copy must be provided to the member within the time limits set forth in subsection (5).

(b) In addition to annual operating expenses, the budget may include reserve accounts for capital expenditures and deferred maintenance for which the association is responsible. If reserve accounts are not established pursuant to paragraph (d), funding of such reserves is limited to the extent that the governing documents limit increases in assessments, including reserves. If the budget of the association includes reserve accounts established pursuant to paragraph (d), such reserves shall be determined, maintained, and waived in the manner provided in this subsection. Once an association provides for reserve accounts pursuant to paragraph (d), the association shall thereafter determine, maintain, and waive reserves in compliance with this subsection. This section does not preclude the termination of a reserve account established pursuant to this paragraph upon approval of a majority of the total voting interests of the association. Upon such approval, the terminating reserve account shall be removed from the budget.

(c)1. If the budget of the association does not provide for reserve accounts pursuant to paragraph (d) and the association is responsible for the repair and maintenance of capital improvements that may result in a special assessment if reserves are not provided, each financial report for the preceding fiscal year required by subsection (7) must contain the following statement in conspicuous type:

THE BUDGET OF THE ASSOCIATION DOES NOT PROVIDE FOR RESERVE ACCOUNTS FOR CAPITAL EXPENDITURES AND DEFERRED MAINTENANCE THAT MAY RESULT IN SPECIAL ASSESSMENTS. OWNERS MAY ELECT TO

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PROVIDE FOR RESERVE ACCOUNTS PURSUANT TO SECTION 720.303(6), FLORIDA STATUTES, UPON OBTAINING THE APPROVAL OF A MAJORITY OF THE TOTAL VOTING INTERESTS OF THE ASSOCIATION BY VOTE OF THE MEMBERS AT A MEETING OR BY WRITTEN CONSENT.

2. If the budget of the association does provide for funding accounts for deferred expenditures, including, but not limited to, funds for capital expenditures and deferred maintenance, but such accounts are not created or established pursuant to paragraph (d), each financial report for the preceding fiscal year required under subsection (7) must also contain the following statement in conspicuous type:

THE BUDGET OF THE ASSOCIATION PROVIDES FOR LIMITED VOLUNTARY DEFERRED EXPENDITURE ACCOUNTS, INCLUDING CAPITAL EXPENDITURES AND DEFERRED MAINTENANCE, SUBJECT TO LIMITS ON FUNDING CONTAINED IN OUR GOVERNING DOCUMENTS. BECAUSE THE OWNERS HAVE NOT ELECTED TO PROVIDE FOR RESERVE ACCOUNTS PURSUANT TO SECTION 720.303(6), FLORIDA STATUTES, THESE FUNDS ARE NOT SUBJECT TO THE RESTRICTIONS ON USE OF SUCH FUNDS SET FORTH IN THAT STATUTE, NOR ARE RESERVES CALCULATED IN ACCORDANCE WITH THAT STATUTE.

(d) An association is deemed to have provided for reserve accounts if reserve accounts have been initially established by the developer or if the membership of the association affirmatively elects to provide for reserves. If reserve accounts are established by the developer, the budget must designate the components for which the reserve accounts may be used. If reserve accounts are not initially provided by the developer, the membership of the association may elect to do so upon the affirmative approval of a majority of the total voting interests of the association. Such approval may be obtained by vote of the members at a duly called meeting of the membership or by the written consent of a majority of the total voting interests of the association. The approval action of the membership must state that reserve accounts shall be provided for in the budget and must designate the components for which the reserve accounts are to be established. Upon approval by the membership, the board of directors shall include the required reserve accounts in the budget in the next fiscal year following the approval and each year thereafter. Once established as provided in this subsection, the reserve accounts must be funded or maintained or have their funding waived in the manner provided in paragraph (f).

(e) The amount to be reserved in any account established shall be computed by means of a formula that is based upon estimated remaining useful life and estimated replacement cost or deferred maintenance expense of each reserve item. The association may adjust replacement reserve assessments annually to take into account any changes in estimates of cost or useful life of a reserve item.

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(f) After one or more reserve accounts are established, the membership of the association, upon a majority vote at a meeting at which a quorum is present, may provide for no reserves or less reserves than required by this section. If a meeting of the unit owners has been called to determine whether to waive or reduce the funding of reserves and such result is not achieved or a quorum is not present, the reserves as included in the budget go into effect. After the turnover, the developer may vote its voting interest to waive or reduce the funding of reserves. Any vote taken pursuant to this subsection to waive or reduce reserves is applicable only to one budget year.

(g) Funding formulas for reserves authorized by this section must be based on a separate analysis of each of the required assets or a pooled analysis of two or more of the required assets.

1. If the association maintains separate reserve accounts for each of the required assets, the amount of the contribution to each reserve account is the sum of the following two calculations:

- a. The total amount necessary, if any, to bring a negative component balance to zero.
- b. The total estimated deferred maintenance expense or estimated replacement cost of the reserve component less the estimated balance of the reserve component as of the beginning of the period the budget will be in effect. The remainder, if greater than zero, shall be divided by the estimated remaining useful life of the component.

The formula may be adjusted each year for changes in estimates and deferred maintenance performed during the year and may include factors such as inflation and earnings on invested funds.

2. If the association maintains a pooled account of two or more of the required reserve assets, the amount of the contribution to the pooled reserve account as disclosed on the proposed budget may not be less than that required to ensure that the balance on hand at the beginning of the period the budget will go into effect plus the projected annual cash inflows over the remaining estimated useful life of all of the assets that make up the reserve pool are equal to or greater than the projected annual cash outflows over the remaining estimated useful lives of all the assets that make up the reserve pool, based on the current reserve analysis. The projected annual cash inflows may include estimated earnings from investment of principal and accounts receivable minus the allowance for doubtful accounts. The reserve funding formula may not include any type of balloon payments.

(h) Reserve funds and any interest accruing thereon shall remain in the reserve account or accounts and shall be used only for authorized reserve expenditures unless their use for other purposes is approved in advance by a majority vote at a meeting at which a quorum is present. Prior to turnover of control of an association by a developer to parcel owners, the

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developer-controlled association shall not vote to use reserves for purposes other than those for which they were intended without the approval of a majority of all nondeveloper voting interests voting in person or by limited proxy at a duly called meeting of the association.

15.1.11 – Georgia - No specific reserve statutes.

15.1.12 – Hawaii

514B-148 Association fiscal matters; budgets and reserves.

(a) The budget required under section 514B-144(a) shall include at least the following:

- (1) The estimated revenues and operating expenses of the association;
- (2) Information as to whether the budget has been prepared on a cash or accrual basis;
- (3) The total replacement reserves of the association as of the date of the budget;
- (4) The estimated replacement reserves the association will require to maintain the property based on a reserve study performed by the association;
- (5) A general explanation of how the estimated replacement reserves are computed;
- (6) The amount the association must collect for the fiscal year to fund the estimated replacement reserves; and
- (7) Information as to whether the amount the association must collect for the fiscal year to fund the estimated replacement reserves was calculated using a per cent funded or cash flow plan. The method or plan shall not circumvent the estimated replacement reserves amount determined by the reserve study pursuant to paragraph (4).

(b) The association shall assess the unit owners to either fund a minimum of fifty per cent of the estimated replacement reserves or fund one hundred per cent of the estimated replacement reserves when using a cash flow plan; provided that a new association need not collect estimated replacement reserves until the fiscal year which begins after the association's first annual meeting. For each fiscal year, the association shall collect the amount assessed to fund the estimated replacement for that fiscal year reserves, as determined by the association's plan.

(c) The association shall compute the estimated replacement reserves by a formula that is based on the estimated life and the estimated capital expenditure or major maintenance required for each part of the property. The estimated replacement reserves shall include:

- (1) Adjustments for revenues which will be received and expenditures which will be made before the beginning of the fiscal year to which the budget relates; and
- (2) Separate, designated reserves for each part of the property for which capital expenditures

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or major maintenance will exceed \$10,000. Parts of the property for which capital expenditures or major maintenance will not exceed \$10,000 may be aggregated in a single designated reserve.

(d) No association or unit owner, director, officer, managing agent, or employee of an association who makes a good faith effort to calculate the estimated replacement reserves for an association shall be liable if the estimate subsequently proves incorrect.

(e) Except in emergency situations or with the approval of a majority of the unit owners, a board may not exceed its total adopted annual operating budget by more than twenty per cent during the fiscal year to which the budget relates. Before imposing or collecting an assessment under this subsection that has not been approved by a majority of the unit owners, the board shall adopt a resolution containing written findings as to the necessity of the extraordinary expense involved and why the expense was not or could not have been reasonably foreseen in the budgeting process, and the resolution shall be distributed to the members with the notice of assessment.

(f) The requirements of this section shall override any requirements in an association's declaration, bylaws, or any other association documents relating to preparation of budgets, calculation of reserve requirements, assessment and funding of reserves, and expenditures from reserves with the exception of:

(1) Any requirements in an association's declaration, bylaws, or any other association documents which require the association to collect more than fifty per cent of reserve requirements; or

(2) Any provisions relating to upgrading the common elements, such as additions, improvements, and alterations to the common elements.

(g) Subject to the procedures of section 514B-157 and any rules adopted by the commission, any unit owner whose association board fails to comply with this section may enforce compliance by the board. In any proceeding to enforce compliance, a board that has not prepared an annual operating budget and reserve study shall have the burden of proving it has complied with this section.

(h) As used in this section:

"Capital expenditure" means an expense that results from the purchase or replacement of an asset whose life is greater than one year, or the addition of an asset that extends the life of an existing asset for a period greater than one year.

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"Cash flow plan" means a minimum twenty-year projection of an association's future income and expense requirements to fund fully its replacement reserves requirements each year during that twenty-year period, except in an emergency; provided that it does not include a projection of special assessments or loans during that twenty-year period, except in an emergency.

"Emergency situation" means any extraordinary expenses:

- (1) Required by an order of a court;
- (2) Necessary to repair or maintain any part of the property for which the association is responsible where a threat to personal safety on the property is discovered;
- (3) Necessary to repair any part of the property for which the association is responsible that could not have been reasonably foreseen by the board in preparing and distributing the annual operating budget;
- (4) Necessary to respond to any legal or administrative proceeding brought against the association that could not have been reasonably foreseen by the board in preparing and distributing the annual operating budget; or
- (5) Necessary for the association to obtain adequate insurance for the property which the association must insure.

"Major maintenance" means an expenditure for maintenance or repair that will result in extending the life of an asset for a period greater than one year.

"Replacement reserves" means funds for the upkeep, repair, or replacement of those parts of the property, including but not limited to roofs, walls, decks, paving, and equipment that the association is obligated to maintain. [L 2004, c 164, pt of §2]

15.1.13 – Idaho - No specific reserve statutes.

15.1.14 – Illinois

765 ILCS 160/1-45 - Sec. 1-45. Finances.

(a) Each member shall receive through a prescribed delivery method, at least 30 days but not more than 60 days prior to the adoption thereof by the board, a copy of the proposed annual budget together with an indication of which portions are intended for reserves, capital expenditures or repairs or payment of real estate taxes.

(b) The board shall provide all members with a reasonably detailed summary of the receipts, common expenses, and reserves for the preceding budget year. The board shall (i)

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make available for review to all members an itemized accounting of the common expenses for the preceding year actually incurred or paid, together with an indication of which portions were for reserves, capital expenditures or repairs or payment of real estate taxes and with a tabulation of the amounts collected pursuant to the budget or assessment, and showing the net excess or deficit of income over expenditures plus reserves or (ii) provide a consolidated annual independent audit report of the financial status of all fund accounts within the association.

760 ILCS 605/9. - Sec. 9. Sharing of expenses - Lien for nonpayment.

(a) All common expenses incurred or accrued prior to the first conveyance of a unit shall be paid by the developer, and during this period no common expense assessment shall be payable to the association. It shall be the duty of each unit owner including the developer to pay his proportionate share of the common expenses commencing with the first conveyance. The proportionate share shall be in the same ratio as his percentage of ownership in the common elements set forth in the declaration.

(b) The condominium instruments may provide that common expenses for insurance premiums be assessed on a basis reflecting increased charges for coverage on certain units.

(c) Budget and reserves - (1) The board of managers shall prepare and distribute to all unit owners a detailed proposed annual budget, setting forth with particularity all anticipated common expenses by category as well as all anticipated assessments and other income. The initial budget and common expense assessment based thereon shall be adopted prior to the conveyance of any unit. The budget shall also set forth each unit owner's proposed common expense assessment.

(2) All budgets adopted by a board of managers on or after July 1, 1990 shall provide for reasonable reserves for capital expenditures and deferred maintenance for repair or replacement of the common elements. To determine the amount of reserves appropriate for an association, the board of managers shall take into consideration the following: (i) the repair and replacement cost, and the estimated useful life, of the property which the association is obligated to maintain, including but not limited to structural and mechanical components, surfaces of the buildings and common elements, and energy systems and equipment; (ii) the current and anticipated return on investment of association funds; (iii) any independent professional reserve study which the association may obtain; (iv) the financial impact on unit owners, and the market value of the condominium units, of any assessment increase needed to fund reserves; and (v) the ability of the association to obtain financing or refinancing.

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(3) Notwithstanding the provisions of this subsection (c), an association without a reserve requirement in its condominium instruments may elect to waive in whole or in part the reserve requirements of this Section by a vote of 2/3 of the total votes of the association. Any association having elected under this paragraph (3) to waive the provisions of subsection (c) may by a vote of 2/3 of the total votes of the association elect to again be governed by the requirements of subsection (c).

(4) In the event that an association elects to waive all or part of the reserve requirements of this Section, that fact must be disclosed after the meeting at which the waiver occurs by the association in the financial statements of the association and, highlighted in bold print, in the response to any request of a prospective purchaser for the information prescribed under Section 22.1; and no member of the board of managers or the managing agent of the association shall be liable, and no cause of action may be brought for damages against these parties, for the lack or inadequacy of reserve funds in the association budget.

15.1.15 – Indiana

Ind. Code § 32-25-4-4 : Indiana Code - Section 32-25-4-4: Contributions for expenses

(a) Except as provided in subsection (d) or (e), the co-owners are bound to contribute pro rata, in the percentages computed under section 3 of this chapter, toward:

(1) the expenses of administration and of maintenance and repair of the general common areas and facilities and, in the proper case, of the limited common areas and facilities of the building; and

(2) any other expense lawfully agreed upon.

(b) A co-owner may not exempt the co-owner from contributing toward the expenses referred to in subsection (a) by:

(1) waiver of the use or enjoyment of the common areas and facilities; or

(2) abandonment of the condominium unit belonging to the co-owner.

(c) All sums assessed by the association of co-owners shall be established by using generally accepted accounting principles applied on a consistent basis and shall include the establishment and maintenance of a replacement reserve fund. The replacement reserve fund may be used for capital expenditures and replacement and repair of the common areas and facilities and may not be used for usual and ordinary repair expenses of the common areas and facilities. The fund shall be:

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(1) maintained in a separate interest bearing account with a bank or savings association authorized to conduct business in the county in which the condominium is established; or
(2) invested in the same manner and in the same types of investments in which the funds of a political subdivision may be invested;

(A) under IC 5-13-9; or

(B) as otherwise provided by law.

15.1.16 – Iowa - No specific reserve statutes.

15.1.17 – Kansas - No specific reserve statutes.

15.1.18 – Kentucky

381.865 Books of account -- Inspection -- Audit.

The administrator, or board of administration, or the person appointed pursuant to the bylaws of the regime, shall keep a book with a detailed account of the receipts and expenditures affecting the project and its administration and specifying the maintenance and repair expenses of the common elements and any other common expenses incurred by or in behalf of the regime. Both the book and vouchers accrediting the entries made thereon shall be available for examination by all the co-owners at convenient hours on working days that shall be set and announced for general knowledge. All books and records shall be kept in accordance with good accounting procedures and be audited at least once a year by an auditor outside of the organization.

381.870 Maintenance -- Pro rata contribution -- Adjustments.

All co-owners are bound to contribute in accordance with their percentage of common interest toward the expenses of administration and of maintenance, repairs and replacement reserves of the general common elements, and, in the proper case, of the limited common elements of the regime, and toward any other expenses lawfully assessed under the master deed and/or by the council of co-owners. Provided, however, that the master deed may provide for adjustments by the council of co-owners for contributions proportioned upon a consideration of a combination of floor area, the number of occupants, demand on public utilities and accessibility to limited common elements. No owner shall be exempt from contributing toward such expenses by waiver of the use or enjoyment of the common elements, both general and limited, or by abandonment of the unit belonging to him; provided, abatement or reduction in an owner's contribution may be granted by the council of co-owners for a reasonable period of time, during which a unit is uninhabitable as the result of damage or destruction.

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381.9167 Powers of unit owners' association — Emergency assessments.

(1) Except as provided in subsection (2) of this section and subject to the provisions of the declaration, the association, even if unincorporated, may:

(f) Regulate the use, maintenance, repair, replacement, and modification of common elements, and authorize access to any unit for those purposes;

(g) Cause additional improvements to be made as a part of the common elements;

(3) Notwithstanding the declaration, an association may impose an emergency assessment against any unit affected to:

(b) Repair an emergency condition of any common structural, utility, or mechanical component which has made, or is in imminent danger of making, any unit, common element, or limited common element unsafe, uninhabitable, or uninsurable, provided the association is first provided an opinion affixed with a professional seal from a professional engineer or licensed architect stating the emergency condition.

Effective: April 11, 2012

381.9203 Documentation to be furnished by seller of unit — Certificate.

(1) Except as provided in KRS 381.9201(2), a seller of a unit shall furnish to a purchaser or purchaser's agent before execution of any contract for sale of a unit, or otherwise before conveyance, a copy of the declaration, other than the plats and plans, and a copy of the bylaws, the rules or regulations of the association, and a certificate, current to the date of issuance and signed and dated by the association's manager or authorized agent, containing:

(d) A statement of any capital expenditures anticipated by the association for the current and, if known, next two (2) fiscal years;

(e) A statement of the amount of any reserves for capital expenditures, if any, and of any portions of those reserves designated by the association for any specified projects;

(f) The most recent regularly prepared balance sheet and income and expense statement, if any, of the association;

(g) The current operating budget of the association;

Effective: April 11, 2012

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15.1.19 – Louisiana

2014 Louisiana Laws
Revised Statutes
TITLE 9 - Civil Code-Ancillaries

§1123.102. Powers of unit owners' association

Subject to the provisions of the declaration, the association, even if unincorporated, may:

- (1) Adopt and amend bylaws and rules and regulations.
- (2) Adopt and amend budgets for revenues, expenditures, and reserves and make and collect assessments for common expenses from unit owners.

§1124.102. Public offering statement; general provisions

A. Prior to the initial sale or execution of a contract to purchase a condominium unit, the declarant shall provide a purchaser of a unit with a copy of the public offering statement containing or accurately disclosing:

(6) A projected operating budget for the association, for the one year period after the date of the first conveyance of a unit to a purchaser and thereafter the current budget of the association, including full details of the estimated monthly charges for maintenance and management of the condominium, including an indication of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement, monthly charges for the use of any recreational facilities, and of insurance coverage on the condominium, and the estimated premiums therefor.

Acts 1979, No. 682, §1.

15.1.20 – Maine

2005 Maine Code - §1603-102 — Powers of unit owners' association

- (a) Subject to the provisions of the declaration, the association may:
- (1) Adopt and amend bylaws and rules and regulations;[1981, c. 699 (new).]
 - (2) Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for common expenses from unit owners;[1981, c. 699 (new).]

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2005 Maine Code - §1604-103 — Public offering statement; general provisions

(a) Except as provided in subsection (b), a public offering statement must contain or fully and accurately disclose:

(5) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser; and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget must include, without limitation:

(i) A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement;

(ii) A statement of the amount and purpose of any other reserves;

(iii) The projected common expense assessment by category of expenditures for the association; and

(iv) The projected monthly common expense assessment for each type of unit; [1981, c. 699 (new).]

(6) Any services not reflected in the budget that the declarant provides, or expenses that he pays, and that he expects may become at any subsequent time a common expense of the association and the projected common expense assessment attributable to each of those services or expenses for the association and for each type of unit;[1981, c. 699 (new).]

(7) Any initial or special fee due from the purchaser at closing, together with a description of the purpose and method of calculating the fee;[1981, c. 699 (new).]

15.1.21 – Maryland

§11–109.

(a) The affairs of the condominium shall be governed by a council of unit owners which, even if unincorporated, is constituted a legal entity for all purposes. The council of unit owners shall be comprised of all unit owners.

(iv) Within 30 days from the date of the meeting held under subparagraph (i) of this paragraph, the developer shall deliver to the officers or board of directors for the council of unit owners, as provided in the condominium declaration or bylaws, at the developer's expense:

1. The documents specified in § 11–132 of this title;

2. The condominium funds, including operating funds, replacement reserves, investment accounts, and working capital;

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3. The tangible property of the condominium; and
- (d) The council of unit owners may be either incorporated as a nonstock corporation or unincorporated and it is subject to those provisions of Title 5, Subtitle 2 of the Corporations and Associations Article which are not inconsistent with this title. The council of unit owners has, subject to any provision of this title, and except as provided in item (22) of this subsection, the declaration, and bylaws, the following powers:
- (3) To adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;

15.1.22 – Massachusetts

Section 10 Corporation, trust or unincorporated association; owner's interest; powers and duties; management

(c) The organization of unit owners may appoint a manager or managing agent or be self-managed by their elected trustees or managing board. The organization of unit owners shall keep a complete copy of the following items, except when the organization shall appoint a manager or managing agent who has responsibility for the collection of assessments, payment of common expenses, or the accounting or custody of common funds, in which case the manager or managing agent shall be responsible, without limitation, for keeping the records in item (4) below:

(ii) Records regarding the replacement reserve fund or any other funds of the organization of unit owners and bank statements relating thereto;

(v) All current insurance policies of the organization of unit owners, or policies which name the organization or keeping the records listed in clause (4) of subsection (c), and shall:

(1) Render at least monthly, or less frequently in accordance with subsection (m), but in no case less frequently than quarterly, a written report to the trustees or the managing board of the organization of unit owners detailing all receipts and expenditures on behalf of the organization, including beginning and ending balances and copies of all relevant bank statements and reconciliations for the replacement reserve fund and any other funds of the organization for which the manager or managing agent has responsibility; and

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(2) Maintain a separate and distinct account or accounts for each of the following: the replacement reserve fund and any other fund of the organization for which the manager or managing agent has responsibility. These funds shall not be commingled with the assets of the manager or managing agent or with the assets of any other person or any other entity. These funds shall not be subject to the claims of any creditor of the manager or managing agent or its successor in interest including a secured creditor or trustee in bankruptcy, and shall not be subject to the claims of any creditor of any other person or any other entity.

(g) Any reserve account of the organization of unit owners shall require all checks to be signed by one member of the governing board or the organization in addition to the managing agent, if one exists, unless there is a written agreement to the contrary between the organization of unit owners and the managing agent. The governing board shall designate a member or members to be the approved signatories on such checks. The requirements of this subsection may be modified pursuant to subsection (m).

(i) All condominiums shall be required to maintain an adequate replacement reserve fund, collected as part of the common expenses and deposited in an account or accounts separate and segregated from operating funds. The requirements of this subsection may be modified pursuant to subsection (m) of this section.

(j) The declarant shall not use any funds of the organization to fund expenses relating to the initial construction, development, and marketing of the project, to pay the declarant's share of common expenses, or to pay for any costs that are not directly related to the operation of the condominium.

(k) The organization of unit owners shall designate a person or entity who shall oversee the maintenance and repair of the common areas of the condominium. The organization of unit owners shall notify all unit owners in writing of the name and phone number of the person or entity designated to oversee maintenance and repair of the common areas, and shall notify all unit owners whenever there is a change in said person or entity.

(m) After control of the condominium has been transferred from the declarant to the organization of unit owners, the organization may by an annual vote of sixty-seven percent in beneficial interest or more of the unit owners modify any or all of the following provisions: the requirement regarding the review of financial records for condominiums comprising fifty or more units in the second paragraph of subsection (d), but such review shall be performed not less frequently than every two years as provided in said subsection (d); the frequency

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with which written reports must be prepared by the manager or management agent pursuant to clause (1) of subsection (f); the signature requirements in subsection (g); the requirement for fidelity insurance coverage in subsection (h); and the reserve fund requirement of subsection (i); provided, however, that any such modification may be rescinded at any time by the vote of a majority in beneficial interest of the unit owners.

15.1.23 – Michigan

R 559.511 Reserve fund for major repairs and replacement of common elements.

(1) The bylaws shall provide that the association of co-owners shall maintain a reserve fund for major repairs and replacement of common elements in accordance with section 105 of the act. The co-owners' association shall maintain a reserve fund which, at a minimum, shall be equal to 10% of the association's current annual budget on a noncumulative basis.

(2) The funds contained in the reserve fund required to be established by section 105 of the act shall only be used for major repairs and replacement of common elements.

(3) There shall be set aside the amount of funds required by subrule (1) of this rule by the time of the transitional control date. The developer shall be liable for any deficiency in this amount at the transitional control date.

(4) The following statement shall be contained in the bylaws: "The minimum standard required by this section may prove to be inadequate for a particular project. The association of co-owners should carefully analyze their condominium project to determine if a greater amount should be set aside, or if additional reserve funds should be established for other purposes."

15.1.24 – Minnesota

2015 Minnesota Statutes

515B.3-102 Powers of Unit Owners' Association.

(a) Except as provided in subsections (b) and (c), and subject to the provisions of the declaration or bylaws, the association shall have the power to:

(2) Adopt and amend budgets for revenues, expenditures and reserves, and levy and collect assessments for common expenses from unit owners;

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(6) Regulate the use, maintenance, repair, replacement, and modification of the common elements and the units;

(7) Cause improvements to be made as a part of the common elements, and, in the case of a cooperative, the units;

515B.3-106 Bylaws; Annual Report.

(a) A common interest community shall have bylaws which comply with this chapter and the statute under which the association is incorporated. The bylaws and any amendments may be recorded, but need not be recorded to be effective unless so provided in the bylaws.

(b) The bylaws shall provide that, in addition to any statutory requirements:

(1) A meeting of the members shall be held at least once each year, and a specified officer of the association shall give notice of the meeting as provided in section 515B.3-108.

(2) An annual report shall be prepared by the association and a copy of the report shall be provided to each unit owner at or prior to the annual meeting.

(c) The annual report shall contain at a minimum:

(1) a statement of any capital expenditures in excess of two percent of the current budget or \$5,000, whichever is greater, approved by the association for the current fiscal year or succeeding two fiscal years;

(2) a statement of the association's total replacement reserves, the components of the common interest community for which the reserves are set aside, and the amounts of the reserves, if any, that the board has allocated for the replacement of each of those components;

515B.3-1141 REPLACEMENT RESERVES.

(a) The association shall include in its annual budgets replacement reserves projected by the board to be adequate, together with past and future contributions to replacement reserves, to fund the replacement of those components of the common interest community which the association is obligated to replace by reason of ordinary wear and tear or obsolescence, subject to the following:

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(1) The amount annually budgeted for replacement reserves shall be adequate, together with past and future contributions to replacement reserves, to replace the components as determined based upon the estimated remaining useful life of each component; provided that portions of replacement reserves need not be segregated for the replacement of specific components.

(2) Unless otherwise required by the declaration, annual budgets need not include reserves for the replacement of (i) components that a remaining useful life of more than 30 years, or (ii) components whose replacement will be funded by assessments authorized under section 515B.3-1151(e)(1), or approved in compliance with clause (5).

(3) The association shall keep the replacement reserves in an account or accounts separate from the association's operating funds, and shall not use or borrow from the replacement reserves to fund the association's operating expenses, provided that this restriction shall not affect the association's authority to pledge the replacement reserves as security for a loan to the association.

(4) The association shall reevaluate the adequacy of its budgeted replacement reserves at least every third year after the recording of the declaration creating the common interest community.

(5) Unless otherwise required by the declaration, after the termination of the period of declarant control, and subject to approval by (i) the board, and (ii) unit owners, other than the declarant or its affiliates, of units to which 51 percent of the votes in the association are allocated, the association need not annually assess for replacement reserves to replace those components whose replacement is planned to be paid for by special assessments, if the declaration authorizes special assessments, or by assessments levied under section 515B.3-1151(e)(2). The approval provided for in the preceding sentence shall be effective for no more than the association's current and three following fiscal years, subject to modification or renewal by the same approval standards.

(6) Unless otherwise required by the declaration, subsection (a) shall not apply to a common interest community which is restricted to nonresidential use.

(b) Unless the declaration provides otherwise, any surplus funds that the association has remaining after payment of or provision for common expenses and reserves shall be (i) credited to the unit owners to reduce their future common expense assessments or (ii) credited to reserves, or any combination thereof, as determined by the board of directors.

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(c) This section applies to common interest communities only for their fiscal years commencing on or after January 1, 2012.

15.1.25 – Mississippi – No specific reserve statutes.

15.1.26 – Missouri

Powers of unit owners' association.

448.3-102. 1. Subject to the provisions of the declaration, the association, even if unincorporated, may:

- (1) Adopt and amend bylaws and rules and regulations;
- (2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;

Resales of units.

448.4-109. 1. Except in the case of a sale where delivery of an original sale certificate is required, or unless exempt under subsection 2 of section 448.4-101, a unit owner shall furnish to a purchaser before execution of any contract for sale of a unit, or otherwise before conveyance, a resale certificate containing: a copy of the declaration, other than the plats and plans; the bylaws; and the rules or regulations of the association. Such resale certificate shall disclose:

- (2) The amount of the monthly common expense assessment and any unpaid common expense or special assessment currently due and payable from the selling unit owner;
- (3) Any other fees payable by unit owners;
- (4) Any capital expenditures anticipated by the association for the current and two next succeeding fiscal years;
- (5) The amount of any reserves for capital expenditures and of any portions of those reserves designated by the association for any specified projects;
- (6) The most recent regularly prepared balance sheet and income and expense statement, if any, of the association;
- (7) The current operating budget of the association;

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15.1.27 – Montana - No specific reserve statutes.

15.1.28 – Nebraska

Nebraska Revised Statute 76-860

76-860. Unit owners association; powers.

(a) Except as provided in subsection (b) of this section and subject to the provisions of the declaration, the association, even if unincorporated, may:

(2) Adopt and amend budgets for revenue, expenditures, and reserves and collect assessments for common expenses from unit owners;

(6) Regulate the use, maintenance, repair, replacement, and modification of common elements;

(7) Cause additional improvements to be made as a part of the common elements;

15.1.29 – Nevada

Nevada Revised Statutes

NRS 116.31152 Study of reserves; duties of executive board regarding study; person who conducts study required to hold permit; contents of study; submission of summary of study to Division; use of money credited against residential construction tax for upkeep of park facilities and related improvements identified in study.

1. The executive board shall:

(a) At least once every 5 years, cause to be conducted a study of the reserves required to repair, replace and restore the major components of the common elements;

(b) At least annually, review the results of that study to determine whether those reserves are sufficient; and

(c) At least annually, make any adjustments to the association's funding plan which the executive board deems necessary to provide adequate funding for the required reserves.

2. The study of the reserves required by subsection 1 must be conducted by a person who holds a permit issued pursuant to chapter 116A of NRS.

3. The study of the reserves must include, without limitation:

(a) A summary of an inspection of the major components of the common elements that the association is obligated to repair, replace or restore;

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(b) An identification of the major components of the common elements that the association is obligated to repair, replace or restore which have a remaining useful life of less than 30 years;

(c) An estimate of the remaining useful life of each major component of the common elements identified pursuant to paragraph (b);

(d) An estimate of the cost of repair, replacement or restoration of each major component of the common elements identified pursuant to paragraph (b) during and at the end of its useful life; and

(e) An estimate of the total annual assessment that may be necessary to cover the cost of repairing, replacement or restoration of the major components of the common elements identified pursuant to paragraph (b), after subtracting the reserves of the association as of the date of the study, and an estimate of the funding plan that may be necessary to provide adequate funding for the required reserves.

4. A summary of the study of the reserves required by subsection 1 must be submitted to the Division not later than 45 days after the date that the executive board adopts the results of the study.

5. If a common-interest community was developed as part of a planned unit development pursuant to chapter 278A of NRS and is subject to an agreement with a city or county to receive credit against the amount of the residential construction tax that is imposed pursuant to NRS 278.4983 and 278.4985, the association that is organized for the common-interest community may use the money from that credit for the repair, replacement or restoration of park facilities and related improvements if:

(a) The park facilities and related improvements are identified as major components of the common elements of the association; and

(b) The association is obligated to repair, replace or restore the park facilities and related improvements in accordance with the study of the reserves required by subsection 1.

(Added to NRS by 1999, 2994; A 2003, 2241; 2005, 2606)

NRS 116.31153 Signatures required for withdrawals from reserve account of association. Money in the reserve account of an association required by paragraph (b) of subsection 2 of NRS 116.3115 may not be withdrawn without the signatures of at least two members of the executive board or the signatures of at least one member of the executive board and one officer of the association who is not a member of the executive board.

(Added to NRS by 1999, 2995)

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NAC 116.425 Reserve study: Contents. (NRS 116.31152, 116.615)

1. A reserve study must, in addition to the requirements set forth in NRS 116.31152, include:

(a) A copy of the component inventory from the previous reserve study if such copy was provided by the executive board to the person conducting the reserve study;

(b) A 30-year schedule which shows:

(1) The projected increase in assessments that will be required in any given year to provide an adequately funded reserve; and

(2) The projected inflation and estimated interest income from the reserve fund;

(c) The names and credentials of any consultants and other persons with expertise used to assist in the preparation of the reserve study;

(d) Any written reports prepared by consultants and other persons with expertise;

(e) If there are any conflicting recommendations of the consultants or other persons with expertise while preparing the reserve study, a written explanation as to which recommendations are selected and the reasons for their selection;

(f) The disclosures set forth in NAC 116.430; and

(g) A statement, prominently displayed, which reads substantially as follows:

The projected life expectancy of the major components and the funding needs of the reserves of the association are based upon the association performing appropriate routine and preventative maintenance for each major component. Failure to perform such maintenance can negatively impact the remaining useful life of the major components and dramatically increase the funding needs of the reserves of the association.

2. As used in this section, “adequately funded reserve” means the funds sufficient to maintain the common elements:

(a) At the level described in the governing documents and in a reserve study; and

(b) Without using the funds from the operating budget or without special assessments, except for occurrences that are a result of unforeseen catastrophic events.

(Added to NAC by Commission for Common-Interest Communities by R129-04, eff. 4-14-2005)

NAC 116.430 Reserve study: Required disclosures. (NRS 116.31152, 116.615) A person conducting a reserve study and any consultant assisting in the preparation of a reserve study shall include in the reserve study the following disclosures:

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1. The background, training, qualifications and references that would qualify the person conducting or assisting in the preparation of the reserve study as competent to conduct or assist in the preparation of the reserve study;
 2. Any relationship which could result in actual or perceived conflicts of interest;
 3. Whether the person conducting or assisting in the preparation of the reserve study is bonded or has professional liability insurance;
 4. The method for determining the common area components based on:
 - (a) An actual field inspection of the common elements with representative sampling;
 - (b) An inventory and material information provided by the client; or
 - (c) A previous reserve study and the date of that study;
 5. Industry sources used for determining:
 - (a) The life of a major component; and
 - (b) The cost of repairing, replacing or restoring a major component;
 6. Any guarantees, express or implied, that are given with the predictions for the cost or life expectancy of any of the major components;
 7. The source of the information regarding the initial reserve fund balance presented in the reserve study; and
 8. Whether a special assessment is anticipated during the time of the contracted reserve study.
- (Added to NAC by Commission for Common-Interest Communities by R129-04, eff. 4-14-2005)

NAC 116.435 Reserve study: Dissemination of summary of results. (NRS 116.31152, 116.615) An executive board shall submit a summary of the results of the reserve study to the Commission pursuant to subsection 4 of NRS 116.31152 by filing, electronically if possible, on a form prescribed by the Division, the summary of the results of the reserve study with the Division. The Division may post the summary of the results of the reserve studies filed with the Division on its website.

(Added to NAC by Commission for Common-Interest Communities by R129-04, eff. 4-14-2005)

15.1.30 - New Hampshire

New Hampshire Condominium act - 356-B:58 Resale by Purchaser. –

I. In the event of any resale of a condominium unit or any interest therein by any person other than the declarant, the prospective unit owner shall have the right to obtain from the owners' association, prior to the contract date of the disposition, the following:

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(a) Appropriate statements pursuant to RSA 356-B:46, VIII and, if applicable, RSA 356-B:47;

(b) A statement of any capital expenditures and major maintenance expenditures anticipated by the unit owners' association within the current or succeeding 2 fiscal years;

(c) A statement of the status and amount of any reserve for the major maintenance or replacement fund and any portion of such fund earmarked for any specified project by the board of directors;

15.1.31 - New Jersey

New Jersey Condominium Act - 46:8B-15. Powers of association.

15. Subject to the provisions of the master deed, the bylaws, rules and regulations and the provisions of this act or other applicable law, the association shall have the following powers:

(e) The association may levy and collect assessments duly made by the association for a share of common expenses or otherwise, including any other moneys duly owed the association, upon proper notice to the appropriate unit owner, together with interest thereon, late fees and reasonable attorneys' fees, if authorized by the master deed or bylaws.

All funds collected by an association shall be maintained separately in the association's name. For investment purposes only, reserve funds may be commingled with operating funds of the association. Commingled operating and reserve funds shall be accounted for separately, and a commingled account shall not, at any time, be less than the amount identified as reserve funds. A manager or business entity managing a condominium, or an agent, employee, officer, or director of an association, shall not commingle any association funds with his or her funds or with the funds of any other condominium association or the funds of another association as defined in section 3 of P.L.1977, c.419 (C.45:22A-23).

If authorized by the master deed or bylaws, the association may levy and collect a capital contribution, membership fee or other charge upon the initial sale or subsequent resale of a unit, which collection shall be earmarked for the purpose of maintenance of or improvements to common elements to defray common expenses or otherwise, provided that such charge shall not exceed nine times the amount of the most recent monthly common expense assessment for that unit.

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15.1.32 - New Mexico

New Mexico Condominium Act - 47-7C-2. Powers of unit owners' association.

A. Except as provided in Subsection B of this section, and subject to the provisions of the declaration, the association may:

- (1) adopt and amend bylaws and rules and regulations;
- (2) adopt and amend budgets for revenues, expenditures and reserves and collect assessments for common expenses from unit owners;
- (6) regulate the use, maintenance, repair, replacement and modification of common elements;
- (7) cause additional improvements to be made as a part of the common elements;
- (10) impose and receive any payments, fees or charges for the use, rental or operation of the common elements, other than limited common elements described in Subsections B and D of Section 14 [47-7B-2 NMSA 1978] of the Condominium Act, and for services provided to the unit owners;

47-7D-3. Disclosure statement; general provisions.

A. Except as provided in Subsection B of this section, a disclosure statement must contain or fully and accurately disclose:

- (1) the name and principal address of the declarant and of the condominium;
- (2) a general description of the condominium, including to the extent possible the types, number and declarant's schedule of commencement and completion of construction of buildings and amenities that the declarant anticipates including in the condominium;
- (3) the number of units in the condominium;
- (4) copies of the declaration, other than the plats and plans, and any other recorded covenants, conditions, restrictions and reservations affecting the condominium; the bylaws and any rules or regulations of the association; copies of any contracts and leases to be signed by purchasers at closing; and a brief narrative description of any contracts or leases that will or may be subject to cancellation by the association under Section 38 [47-7C-5 NMSA 1978] of the Condominium Act;
- (5) any current balance sheet and a projected budget for the association, either within or as an exhibit to the disclosure statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget shall include without limitation:

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- (a) a statement of the amount or a statement that there is no amount included in the budget as a reserve for repairs and replacement;
- (b) a statement of any other reserves;

47 - 7E - 5. Record disclosure to members; updated information.

- A. All financial and other records of the association shall be made available for examination by a lot owner within ten business days of the request.
- B. The association shall not charge a fee for making financial and other records available for review. The association may charge a reasonable fee for copies.
- C. As used in this section, "financial and other records" includes:
 - (6) The operating budget for the current fiscal year;
 - (7) Current assessments, including both regular and special assessments;
 - (8) Financial statements and accounts, including amounts held in reserve;
 - (9) The most recent financial audit or review, if any;

15.1.33 - New York

Cooperative Corporations - § 72. Reserves, net margins, net retained proceeds, distributions, and patronage refunds.

The directors shall periodically set aside reasonable sums for reserves. The net margins or net retained proceeds may, in the discretion of the directors, be distributed at least once every twelve months to members or patrons, by uniform distribution and calculated on such bases as the by-laws or marketing contract may prescribe.

Distributions may be credited on account of the issuance to members or patrons of capital stock or other securities of the corporation. In the case of cooperatives with capital stock, dividends shall not exceed twelve per centum per annum on any class of stock.

15.1.34 - North Carolina

North Carolina Condominium Act - § 47C-3-102. Powers of unit owners' association.

- (a) Unless the declaration expressly provides to the contrary, the association, even if unincorporated, may:
 - (1) Adopt and amend bylaws and rules and regulations;

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- (2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;
- (6) Regulate the use, maintenance, repair, replacement, and modification of common elements;
- (7) Cause additional improvements to be made as a part of the common elements;

47C-4-103. Public offering statement; general provisions.

- (a) A public offering statement must contain or fully and accurately disclose:

(5) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget must include, without limitation:

- a. A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement;
- b. A statement of any other reserves;
- c. The projected common expense assessment by category of expenditures for the association; and
- d. The projected monthly common expense assessment for each type of unit;
- (6) Any services that the declarant provides or expenses that he pays which are not reflected in the budget and that he expects may become at any subsequent time a common expense of the association and the projected common expense assessment attributable to each of those services or expenses for the association and for each type of unit;
- (7) Any initial or special fee due from the purchaser at closing, together with a description of the purpose and method of calculating the fee;
- (15) Any current or known future fees or charges to be paid by unit owners for the use of the common elements and other facilities related to the condominium;

North Carolina planned development Act - § 47F-3-102. Powers of owners' association.

Unless the articles of incorporation or the declaration expressly provides to the contrary, the association may:

- (1) Adopt and amend bylaws and rules and regulations;

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- (2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from lot owners;
- (6) Regulate the use, maintenance, repair, replacement, and modification of common elements;
- (7) Cause additional improvements to be made as a part of the common elements;

15.1.35 - North Dakota - No specific reserve statutes.

15.1.36 – Ohio

Ohio Condominium Real Property Law - 5311.081 Powers and duties of board of directors.

(A) Unless otherwise provided in the declaration or bylaws, the unit owners association, through the board of directors, shall do both of the following:

- (1) Adopt and amend budgets for revenues, expenditures, and reserves in an amount adequate to repair and replace major capital items in the normal course of operations without the necessity of special assessments, provided that the amount set aside annually for reserves shall not be less than ten per cent of the budget for that year unless the reserve requirement is waived annually by the unit owners exercising not less than a majority of the voting power of the unit owners association;
 - (4) Regulate the use, maintenance, repair, replacement, modification, and appearance of the condominium property;
 - (6) Cause additional improvements to be made as part of the common elements;
 - (8) Acquire, encumber, and convey or otherwise transfer personal property;
- Effective Date: 07-20-2004

Ohio planned community law - 5312.06 Powers of owner's association.

(A) Unless otherwise provided in the declaration or bylaws, the owners association, through its board of directors, shall do both of the following:

- (1) Annually adopt and amend an estimated budget for revenues and expenditures. Any budget shall include reserves in an amount adequate to repair and replace major capital items in the normal course of operations without the necessity of special assessments, unless the owners, exercising not less than a majority of the voting power of the owners association, waive the reserve requirement annually.
- (2) Collect assessments for common expenses from owners in accordance with section 5312.10 of the Revised Code.

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- (5) Adopt and enforce rules that regulate the maintenance, repair, replacement, modification, and appearance of common elements, and any other rules as the declaration provides;
 - (6) Acquire, encumber, and convey or otherwise transfer real and personal property, subject to section 5312.10 of the Revised Code;
 - (7) Hold in the name of the owners association the real property and personal property;
- Added by 128th General Assembly File No.41, SB 187, §1, eff. 9/10/2010.

15.1.37 – Oklahoma - No specific reserve statutes.

15.1.38 – Oregon

100.175 Reserve account for maintaining, repairing and replacing common elements; reserve study; maintenance plan.

- (1) The declarant, on behalf of the association of unit owners, shall:
 - (a) Conduct an initial reserve study as described in subsection (3) of this section;
 - (b) Prepare an initial maintenance plan as described in subsection (4) of this section; and
 - (c) Establish a reserve account as provided in subsection (2) of this section.
- (2)
 - (a) A reserve account shall be established to fund major maintenance, repair or replacement of those common elements all or part of which will normally require major maintenance, repair or replacement in more than one and less than 30 years, for exterior painting if the common elements include exterior painted surfaces, and for such other items as may be required by the declaration or bylaws. The reserve account need not include:
 - (A) Items that can reasonably be funded from the general budget or other funds or accounts of the association; or
 - (B) A reserve for limited common elements for which maintenance and replacement are the responsibility of one or more, but less than all, unit owners under the provisions of the declaration or bylaws.
 - (b) The reserve account shall be established in the name of the association of unit owners. The association is responsible for administering the account and for making periodic payments into the account.
 - (c) The reserve portion of the initial assessment determined by the declarant shall be based on:

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- (A) The reserve study described in subsection (3) of this section;
- (B) In the case of a conversion condominium, the statement described in ORS 100.655 (1)(g); or
- (C) Other reliable information.
- (d) The reserve account must be funded by assessments against the individual units for the purposes for which the reserve account is established.
- (e) The assessment under this subsection accrues from the time of the conveyance of the first individual unit assessed as provided in ORS 100.530.

(3)

(a) The board of directors of the association annually shall conduct a reserve study or review and update an existing study to determine the reserve account requirements and may:

- (A) Adjust the amount of payments in accordance with the study or review; and
- (B) Provide for other reserve items that the board of directors, in its discretion, may deem appropriate.

(b) The reserve study shall:

- (A) Identify all items for which reserves are or will be established;
- (B) Include the estimated remaining useful life of each item as of the date of the reserve study; and
- (C) Include for each item, as applicable, an estimated cost of maintenance and repair and replacement at the end of the item's useful life.

(4)

(a) The board of directors shall prepare a maintenance plan for the maintenance, repair and replacement of all property for which the association has maintenance, repair or replacement responsibility under the declaration or bylaws or this chapter. The maintenance plan shall:

- (A) Describe the maintenance, repair and replacement to be conducted;
 - (B) Include a schedule for the maintenance, repair and replacement;
 - (C) Be appropriate for the size and complexity of the maintenance, repair and replacement responsibility of the association; and
 - (D) Address issues that include but are not limited to warranties and the useful life of the items for which the association has maintenance, repair or replacement responsibility.
- (b) The board of directors shall review and update the maintenance plan described under this subsection as necessary.

(5)

(a) Except as provided in paragraph (b) of this subsection, the reserve study requirements under subsection (3) of this section and the maintenance plan requirements under subsection

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(4) of this section do not apply to a condominium consisting of one or two units, excluding units used for parking, storage or other uses ancillary to a unit:

(A) After the sale of the first unit to a person other than a successor declarant, if the condominium is created on or after September 27, 2007; or

(B) If the condominium was created before September 27, 2007, notwithstanding any requirement in the declaration or bylaws.

(b) The reserve study requirements under subsection (3) of this section and the maintenance plan requirements under subsection (4) of this section apply to a flexible condominium or a staged condominium created on or after September 27, 2007, if the condominium might in the future consist of more than two units.

(6)

(a) If the declaration or bylaws require a reserve account, the reserve study requirements of subsection (3) of this section and the maintenance plan requirements of subsection (4) of this section first apply to the association of a condominium recorded prior to October 23, 1999:

(A) Upon adoption of a resolution by the board of directors in accordance with the bylaws providing that the requirements of subsections (3) and (4) of this section apply to the association; or

(B) Upon submission to the board of directors of a petition signed by a majority of unit owners mandating that the requirements of subsections (3) and (4) of this section apply to the association.

(b) The reserve study and the maintenance plan shall be completed within one year of the date of adoption of the resolution or submission of the petition to the board of directors.

(7)

(a) Except as provided in paragraph (b) of this subsection, the reserve account is to be used only for the purposes for which reserves have been established and is to be kept separate from other funds.

(b) After the individual unit owners have assumed administrative responsibility for the association under ORS 100.210, if the board of directors has adopted a resolution, which may be an annual continuing resolution, authorizing the borrowing of funds:

(A) The board of directors may borrow funds from the reserve account to meet high seasonal demands on the regular operating funds or to meet unexpected increases in expenses.

(B) Not later than the adoption of the budget for the following year, the board of directors shall adopt by resolution a written payment plan providing for repayment of the borrowed funds within a reasonable period.

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(8) Restrictions on the use of the reserve account do not prohibit its prudent investment subject to any constraints on investment of association funds imposed by the declaration, bylaws or rules of the association of unit owners.

(9) Assessments paid into the reserve account are the property of the association of unit owners and are not refundable to sellers of units.

(10) In addition to the authority of the board of directors under subsection (3)(a) of this section, following turnover, the association may:

(a) On an annual basis, elect not to fund the reserve account described in subsection (1) of this section by unanimous vote of the owners; or

(b) Elect to reduce or increase future assessments for the reserve account described in subsection (1) of this section by an affirmative vote of at least 75 percent of the owners. [Formerly 94.072; 1997 c.816 §7; 1999 c.677 §44; 2001 c.756 §34; 2003 c.569 §27; 2005 c.543 §2; 2007 c.409 §23]

15.1.39 – Pennsylvania

Condominium Associations

§ 3302. *Powers of unit owners' association.*

(a) General rule.--Subject to the provisions of the declaration, the association, even if unincorporated, may:

(1) Adopt and amend bylaws and rules and regulations.

(2) Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for common expenses from unit owners.

(6) Regulate the use, maintenance, repair, replacement and modification of common elements, and to make reasonable accommodations or permit reasonable modifications to be made to units, the limited common elements or the common elements to accommodate handicapped, as defined by prevailing Federal, State or local statute, regulations, code or ordinance, unit owners, residents, tenants or employees.

(7) Cause additional improvements to be made as a part of the common elements.

(8) (i) Acquire, hold, encumber and convey in its own name any right, title, or interest to real or personal property other than common elements; and

(12) Impose reasonable charges for the preparation and recordation of amendments to the declaration, resale certificates required by section 3407 (relating to resales of units) or

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statements of unpaid assessments. In addition, the association may impose a capital improvement fee, but no other fees, on the resale or transfer of units in accordance with the following:

(i) The capital improvement fee for any unit shall not exceed the annual assessments for general common expense charged to such unit during the most recently completed fiscal year of the association, provided that:

(A) in the case of resale or transfer of a unit consisting of unimproved real estate, the capital improvement fee shall not exceed one-half of the annual assessments for general common expenses charged to such unit during the most recently completed fiscal year of the association;

(B) in the case of resale or transfer of a unit which was created or added to the condominium in accordance with section 3211 (relating to the conversion and expansion of flexible condominiums) at some time during the most recently completed fiscal year of the association but was not in existence for the entire fiscal year, the capital improvement fee shall not exceed one-half of the annual assessments for general common expenses charged to a unit comparable to such unit during the most recently completed fiscal year of the association; and

(C) capital improvement fees are not refundable upon any sale, conveyance or any other transfer of the title to a unit.

(ii) Capital improvement fees allocated by an association must be maintained in a separate capital account and may be expended only for new capital improvements or replacement of existing common elements, improvements on the common elements and may not be expended for operation, maintenance or other purposes.

(iii) No capital improvement fee shall be imposed on any gratuitous transfer of a unit between any of the following family members: spouses, parent and child, siblings, grandparent and grandchild, nor on any transfer of a unit by foreclosure sale or deed in lieu of foreclosure to a secured lending institution as defined by the act of December 3, 1959 (P.L.1688, No.621), known as the Housing Finance Agency Law.

§ 3402. Public offering statement; general provisions.

(a) General rule.--Except as provided in subsection (b), a public offering statement must contain or fully and accurately disclose:

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(6) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget and a statement of the budget's material assumptions, including those concerning occupancy and inflation factors. The budget must include, without limitation:

- (i) A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement.
- (ii) A statement containing a description of any provisions made in the budget for reserves for anticipated material capital expenditures or any other reserves or, if no provision is made for reserves, a statement to that effect.

Planned communities

§ 5302. Power of unit owners' association.

(a) General rule.--Except as provided in subsection (b) and subject to the provisions of the declaration and the limitations of this subpart, the association, even if unincorporated, may:

- (1) Adopt and amend bylaws and rules and regulations.
- (2) Adopt and amend budgets for revenues, expenditures and reserves and collect assessments for common expenses from unit owners.
- (6) Regulate the use, maintenance, repair, replacement and modification of common elements and make reasonable accommodations or permit reasonable modifications to be made to units, the common facilities, the controlled facilities or the common elements, to accommodate people with disabilities, as defined by prevailing Federal, State or local statute, regulations, code or ordinance, unit owners, residents, tenants or employees.
- (7) Cause additional improvements to be made as a part of the common facilities and, only to the extent permitted by the declaration, the controlled facilities.

§ 5402. Public offering statement; general provisions.

(a) General rule.--Except as provided in subsection (b), a public offering statement must contain or fully and accurately disclose:

(7) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance

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to a purchaser and thereafter the current budget of the association, a statement of who prepared the budget and a statement of the budget's material assumptions, including those concerning occupancy and inflation factors. The budget must include, without limitation:

- (i) A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement.
- (ii) A statement containing a description of any provisions made in the budget for reserves for anticipated material capital expenditures or any other reserves or, if no provision is made for reserves, a statement to that effect.

15.1.40 - Rhode Island

§ 34-36.1-3.02 - Powers of unit owners' association.

(a) Except as provided in subsection (b), and subject to the provisions of the declaration, the association, even if unincorporated, may:

- (1) Adopt and amend bylaws and rules and regulations;
- (2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;
- (6) Regulate the use, maintenance, repair, replacement and modification of common elements;
- (7) Cause additional improvements to be made as a part of the common elements;

§ 34-36.1-4.03 - Public offering statement – General provisions.

(a) Except as provided in subsection (b), a public offering statement must contain or fully and accurately disclose:

- (5) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget must include, without limitation:

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(i) An annual amount to establish a sufficient reserve for the painting and/or staining of exterior wood surfaces, replacement of roof shingles, resurfacing of roadways, and replacement of other items subject to deterioration which shall include but not be limited to, exterior wooden decks and mulch;

(ii) An itemization of the life-span and expense for restaining or repainting the exterior wood surfaces, resurfacing the roadways, and reshingling the roof, replacing exterior wooden decks, and replacing mulch, said expenses to be defined as annual and monthly sums per unit as part of the common expense assessment;

(iii) The projected common expense assessment by category of expenditures for the association; and

(iv) The projected monthly common expense assessment for each type of unit;

(7) Any initial or special fee due from the purchaser at closing, together with a description of the purpose and method of calculating the fee;

15.1.41 - South Carolina - No specific reserve statutes.

15.1.42 - South Dakota – No specific reserve statutes.

15.1.43 – Tennessee

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Title 66 - Property

Chapter 27 - Horizontal Property

Part 4 - Tennessee Condominium Act of 2008 Unit Owners' Association

66-27-402. Powers of unit owners' association.

(a) Except as provided in subsection (b), and subject to the provisions of the declaration, the association, even if unincorporated, or if incorporated or a limited liability company even if subsequently dissolved administratively, may:

(1) Adopt and amend bylaws, and rules and regulations;

(2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;

(6) Regulate the use, maintenance, repair, replacement, and modification of common elements;

(7) Cause additional improvements to be made as a part of the common elements;

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Title 66 - Property

Chapter 27 - Horizontal Property

Part 5 - Tennessee Condominium Act of 2008 Units Restricted to Residential Purposes

66-27-503. Information to be provided General.

The information to be provided pursuant to § 66-27-502 shall include the following:

(4) The most recent balance sheet, income statement, and approved budget for the association, or, if there has never been an approved budget, then the projected budget. The budget must include, without limitation:

(A) A statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacements, and whether or not any study has been done to determine their adequacy, and if a study has been done, where the study will be made available for review and inspection;

(B) A statement of any other reserves;

15.1.44 – Texas

Texas Uniform Condominium Act

Sec. 82.102. POWERS OF UNIT OWNERS' ASSOCIATION.

- (a) Unless otherwise provided by the declaration, the association, acting through its board, may:
- (1) adopt and amend bylaws;
 - (2) adopt and amend budgets for revenues, expenditures, and reserves, and collect assessments for common expenses from unit owners;
 - (6) regulate the use, maintenance, repair, replacement, modification, and appearance of the condominium;
 - (7) adopt and amend rules regulating the use, occupancy, leasing or sale, maintenance, repair, modification, and appearance of units and common elements, to the extent the regulated actions affect common elements or other units;
 - (8) cause additional improvements to be made as a part of the common elements;

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Added by Acts 1993, 73rd Leg., ch. 244, Sec. 1, eff. Jan. 1, 1994.

Amended by: Acts 2013, 83rd Leg., R.S., Ch. 678 (H.B. 2075), Sec. 3, eff. September 1, 2013.

Sec. 82.157. RESALE OF UNIT.

(a) Except as provided by Subsection (c), if a unit owner other than a declarant intends to sell a unit, before executing a contract or conveying the unit, the unit owner must furnish to the purchaser a current copy of the declaration, bylaws, any association rules, and a resale certificate that must have been prepared not earlier than three months before the date it is delivered to the purchaser. The resale certificate must be issued by the association and must contain the current operating budget of the association and statements of:

(2) the amount of the periodic common expense assessment and the unpaid common expenses or special assessments currently due and payable from the selling unit owner;

(4) capital expenditures, if any, approved by the association for the next 12 months;

(5) the amount of reserves, if any, for capital expenditures and of portions of those reserves designated by the association for a specified project;

Added by Acts 1993, 73rd Leg., ch. 244, Sec. 1, eff. Jan. 1, 1994.

15.1.45 – Utah

Title 57 - Real Estate

Chapter 8a - Community Association Act

57-8a-211 (Effective 7/1/14) - Reserve analysis - Reserve fund.

(1) As used in this section:

(a) "Reserve analysis" means an analysis to determine:

(i) the need for a reserve fund to accumulate money to cover the cost of repairing, replacing, or restoring common areas that have a useful life of three years or more and a remaining useful life of less than 30 years, if the cost cannot reasonably be funded from the association's general budget or from other association funds; and

(ii) the appropriate amount of any reserve fund.

(b) "Reserve fund line item" means the line item in an association's annual budget that identifies the amount to be placed into a reserve fund.

(2) Except as otherwise provided in the governing documents, a board shall:

(a) cause a reserve analysis to be conducted no less frequently than every six years; and

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(b) review and, if necessary, update a previously conducted reserve analysis no less frequently than every three years.

(3) The board may conduct a reserve analysis itself or may engage a reliable person or organization, as determined by the board, to conduct the reserve analysis.

(4) A reserve fund analysis shall include:

(a) a list of the components identified in the reserve analysis that will reasonably require reserve funds;

(b) a statement of the probable remaining useful life, as of the date of the reserve analysis, of each component identified in the reserve analysis;

(c) an estimate of the cost to repair, replace, or restore each component identified in the reserve analysis;

(d) an estimate of the total annual contribution to a reserve fund necessary to meet the cost to repair, replace, or restore each component identified in the reserve analysis during the component's useful life and at the end of the component's useful life; and

(e) a reserve funding plan that recommends how the association may fund the annual contribution described in Subsection (4)(d).

(5) An association shall:

(a) annually provide lot owners a summary of the most recent reserve analysis or update; and

(b) provide a copy of the complete reserve analysis or update to a lot owner who requests a copy.

(6) In formulating its budget each year, an association shall include a reserve fund line item in:

(a) an amount the board determines, based on the reserve analysis, to be prudent; or

(b) an amount required by the governing documents, if the governing documents require an amount higher than the amount determined under Subsection (6)(a).

(7) (a) Within 45 days after the day on which an association adopts its annual budget, the lot owners may veto the reserve fund line item by a 51% vote of the allocated voting interests in the association at a special meeting called by the lot owners for the purpose of voting whether to veto a reserve fund line item.

(b) If the lot owners veto a reserve fund line item under Subsection (7)(a) and a reserve fund line item exists in a previously approved annual budget of the association that was not vetoed, the association shall fund the reserve account in accordance with that prior reserve fund line item.

(8) (a) Subject to Subsection (8)(b), if an association does not comply with the requirements described in Subsection (5), (6), or (7) and fails to remedy the noncompliance within the time specified in Subsection (8)(c), a lot owner may file an action in state court for:

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(i) injunctive relief requiring the association to comply with the requirements of Subsection (5), (6), or (7);

(ii) \$500 or the lot owner's actual damages, whichever is greater;

(iii) any other remedy provided by law; and

(iv) reasonable costs and attorney fees.

(b) No fewer than 90 days before the day on which a lot owner files a complaint under Subsection (8)(a), the lot owner shall deliver written notice described in Subsection (8)(c) to the association.

(c) A notice under Subsection (8)(b) shall state:

(i) the requirement in Subsection (5), (6), or (7) with which the association has failed to comply;

(ii) a demand that the association come into compliance with the requirements; and

(iii) a date, no fewer than 90 days after the day on which the lot owner delivers the notice, by which the association shall remedy its noncompliance.

(d) In a case filed under Subsection (8)(a), a court may order an association to produce the summary of the reserve analysis or the complete reserve analysis on an expedited basis and at the association's expense.

(9) (a) A board may not use money in a reserve fund:

(i) for daily maintenance expenses, unless a majority of association members vote to approve the use of reserve fund money for that purpose; or

(ii) for any purpose other than the purpose for which the reserve fund was established.

(b) A board shall maintain a reserve fund separate from other association funds.

(c) This Subsection (9) may not be construed to limit a board from prudently investing money in a reserve fund, subject to any investment constraints imposed by the governing documents.

(10) Subsections (2) through (9) do not apply to an association during the period of administrative control.

(11) This section applies to each association, regardless of when the association was created.

Amended by Chapter 152, 2013 General Session

Amended by Chapter 419, 2013 General Session

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Title 57 - Real Estate

Chapter 8 - Condominium Ownership Act

Section 7.5 (Effective 7/1/14) Reserve analysis -- Reserve fund

- (1) As used in this section:
 - (a) "Reserve analysis" means an analysis to determine:
 - (i) the need for a reserve fund to accumulate money to cover the cost of repairing, replacing, or restoring common areas and facilities that have a useful life of three years or more and a remaining useful life of less than 30 years, if the cost cannot reasonably be funded from the general budget or other funds of the association of unit owners; and
 - (ii) the appropriate amount of any reserve fund.
 - (b) "Reserve fund line item" means the line item in an association of unit owners' annual budget that identifies the amount to be placed into a reserve fund.
- (2) Except as otherwise provided in the declaration, a management committee shall:
 - (a) cause a reserve analysis to be conducted no less frequently than every six years; and
 - (b) review and, if necessary, update a previously conducted reserve analysis no less frequently than every three years.
- (3) The management committee may conduct a reserve analysis itself or may engage a reliable person or organization, as determined by the management committee, to conduct the reserve analysis.
- (4) A reserve fund analysis shall include:
 - (a) a list of the components identified in the reserve analysis that will reasonably require reserve funds;
 - (b) a statement of the probable remaining useful life, as of the date of the reserve analysis, of each component identified in the reserve analysis;
 - (c) an estimate of the cost to repair, replace, or restore each component identified in the reserve analysis;
 - (d) an estimate of the total annual contribution to a reserve fund necessary to meet the cost to repair, replace, or restore each component identified in the reserve analysis during the component's useful life and at the end of the component's useful life; and
 - (e) a reserve funding plan that recommends how the association of unit owners may fund the annual contribution described in Subsection (4)(d).
- (5) An association of unit owners shall:
 - (a) annually provide unit owners a summary of the most recent reserve analysis or update; and
 - (b) provide a copy of the complete reserve analysis or update to a unit owner who requests a copy.

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(6) In formulating its budget each year, an association of unit owners shall include a reserve fund line item in:

(a) an amount the management committee determines, based on the reserve analysis, to be prudent; or

(b) an amount required by the declaration, if the declaration requires an amount higher than the amount determined under Subsection (6)(a).

(7) (a) Within 45 days after the day on which an association of unit owners adopts its annual budget, the unit owners may veto the reserve fund line item by a 51% vote of the allocated voting interests in the association of unit owners at a special meeting called by the unit owners for the purpose of voting whether to veto a reserve fund line item.

(b) If the unit owners veto a reserve fund line item under Subsection (7)(a) and a reserve fund line item exists in a previously approved annual budget of the association of unit owners that was not vetoed, the association of unit owners shall fund the reserve account in accordance with that prior reserve fund line item.

(8) (a) Subject to Subsection (8)(b), if an association of unit owners does not comply with the requirements of Subsection (5), (6), or (7) and fails to remedy the noncompliance within the time specified in Subsection (8)(c), a unit owner may file an action in state court for:

(i) injunctive relief requiring the association of unit owners to comply with the requirements of Subsection (5), (6), or (7);

(ii) \$500 or actual damages, whichever is greater;

(iii) any other remedy provided by law; and

(iv) reasonable costs and attorney fees.

(b) No fewer than 90 days before the day on which a unit owner files a complaint under Subsection (8)(a), the unit owner shall deliver written notice described in Subsection (8)(c) to the association of unit owners.

(c) A notice under Subsection (8)(b) shall state:

(i) the requirement in Subsection (5), (6), or (7) with which the association of unit owners has failed to comply;

(ii) a demand that the association of unit owners come into compliance with the requirements; and

(iii) a date, no fewer than 90 days after the day on which the unit owner delivers the notice, by which the association of unit owners shall remedy its noncompliance.

(d) In a case filed under Subsection (8)(a), a court may order an association of unit owners to produce the summary of the reserve analysis or the complete reserve analysis on an expedited basis and at the association of unit owners' expense.

(9) (a) A management committee may not use money in a reserve fund:

(i) for daily maintenance expenses, unless a majority of the members of the association of unit owners vote to approve the use of reserve fund money for that purpose; or

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(ii) for any purpose other than the purpose for which the reserve fund was established.

(b) A management committee shall maintain a reserve fund separate from other funds of the association of unit owners.

(c) This Subsection (9) may not be construed to limit a management committee from prudently investing money in a reserve fund, subject to any investment constraints imposed by the declaration.

(10) Subsections (2) through (9) do not apply to an association of unit owners during the period of declarant control described in Subsection 57-8-16.5(1).

(11) This section applies to each association of unit owners, regardless of when the association of unit owners was created.

Amended by Chapter 189, 2014 General Session

15.1.46 – Vermont

Title 27a - Uniform Common Interest Ownership Act (1994)

Chapter 003 - Management of the Common Interest Community

§ 3-102. Powers of unit owners' association

(a) Except as otherwise provided in subsection (b) of this section and other provisions of this title, the association:

(1) Shall adopt and may amend bylaws and may adopt and amend rules.

(2) Shall adopt and may amend budgets for revenues, expenditures, and reserves under section 3-123 of this title, may collect assessments for common expenses from unit owners, and may invest funds of the association.

(6) May regulate the use, maintenance, repair, replacement, and modification of common elements.

(7) May make additional improvements to the common elements.

Chapter 004 - Protection of Purchasers

§ 4-103. Public offering statement; general provisions

(a) Except as otherwise provided in subsection (b) of this section, a public offering statement shall contain or fully and accurately disclose all the following:

(5) The financial information required by subsection (d) of this section.

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(d) The public offering statement must contain any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance to a purchaser, and thereafter the current budget of the association, a statement of who prepared the budget, and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget must include:

- (1) a statement of the amount, or a statement that there is no amount, included in the budget as a reserve for repairs and replacement;
- (2) a statement of any other reserves;

(Added 1997, No. 104 (Adj. Sess.), § 3, eff. Jan. 1, 1999; amended 2009, No. 155 (Adj. Sess.), § 44, eff. Jan. 1, 2012.)

15.1.47 – Virginia

2011 Code of Virginia

Title 55 PROPERTY AND CONVEYANCES - Chapter 4.2 Condominium Act

§ 55-79.83:1 Reserves for capital components

A. Except to the extent otherwise provided in the condominium instruments and unless the condominium instruments impose more stringent requirements, the executive organ 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 executive board 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 unit owners' association budget shall include, without limitations:

- 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 the capital components and the amount of the expected contribution to the reserve fund for that fiscal year; and

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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 unit owners' association is funding its reserve obligations consistent with the study currently in effect.

2006 Code of Virginia

§ 55-79.97. Resale by purchaser.

A resale certificate shall include the following:

5. The current reserve study report or a summary thereof, a statement of the status and amount of any reserve or replacement fund and any portion of the fund designated for any specified project by the executive organ;

6. A copy of the unit owners' association's current budget or a summary thereof prepared by the unit owners' association and a copy of the statement of its financial condition for the last fiscal year for which a statement is available;

§ 55-514.1. 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 reserve fund for that year; and

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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.

15.1.48 – Washington

RCW 64.34.380 - Reserve account — Reserve study — Annual update.

(1) An association is encouraged to establish a reserve account with a financial institution to fund major maintenance, repair, and replacement of common elements, including limited common elements that will require major maintenance, repair, or replacement within thirty years. If the association establishes a reserve account, the account must be in the name of the association. The board of directors is responsible for administering the reserve account.

(2) Unless doing so would impose an unreasonable hardship, an association with significant assets shall prepare and update a reserve study, in accordance with the association's governing documents and RCW 64.34.224(1). The initial reserve study must be based upon a visual site inspection conducted by a reserve study professional.

(3) Unless doing so would impose an unreasonable hardship, the association shall update the reserve study annually. At least every three years, an updated reserve study must be prepared and based upon a visual site inspection conducted by a reserve study professional.

(4) This section and RCW 64.34.382 through 64.34.392 apply to condominiums governed by chapter 64.32 RCW or this chapter and intended in whole or in part for residential purposes. These sections do not apply to condominiums consisting solely of units that are restricted in the declaration to nonresidential use. An association's governing documents may contain stricter requirements.

RCW 64.34.382 - Reserve study — Contents.

(1) A reserve study as described in RCW 64.34.380 is supplemental to the association's operating and maintenance budget. In preparing a reserve study, the association shall estimate the anticipated major maintenance, repair, and replacement costs, whose infrequent and significant nature make them impractical to be included in an annual budget.

(2) A reserve study must include:

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(a) A reserve component list, including roofing, painting, paving, decks, siding, plumbing, windows, and any other reserve component that would cost more than one percent of the annual budget for major maintenance, repair, or replacement. If one of these reserve components is not included in the reserve study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, remaining useful life of each reserve component, and current repair and replacement cost for each component;

(b) The date of the study and a statement that the study meets the requirements of this section;

(c) The following level of reserve study performed:

 (i) Level I: Full reserve study funding analysis and plan;

 (ii) Level II: Update with visual site inspection; or

 (iii) Level III: Update with no visual site inspection;

(d) The association's reserve account balance;

(e) The percentage of the fully funded balance that the reserve account is funded;

(f) Special assessments already implemented or planned;

(g) Interest and inflation assumptions;

(h) Current reserve account contribution rate;

(i) A recommended reserve account contribution rate, a contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a baseline funding plan to maintain the reserve balance above zero throughout the thirty-year study period without special assessments, and a contribution rate recommended by a reserve study professional;

(j) A projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments; and

(k) A statement on whether the reserve study was prepared with the assistance of a reserve study professional.

(3) A reserve study shall include the following disclosure:

"This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of

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such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component."

RCW 64.34.384 - Reserve account — Withdrawals.

An association may withdraw funds from its reserve account to pay for unforeseen or unbudgeted costs that are unrelated to maintenance, repair, or replacement of the reserve components. The board of directors shall record any such withdrawal in the minute books of the association, cause notice of any such withdrawal to be hand delivered or sent prepaid by first-class United States mail to the mailing address of each unit or to any other mailing address designated in writing by the unit owner, and adopt a repayment schedule not to exceed twenty-four months unless it determines that repayment within twenty-four months would impose an unreasonable burden on the unit owners. Payment for major maintenance, repair, or replacement of the reserve components out of cycle with the reserve study projections or not included in the reserve study may be made from the reserve account without meeting the notification or repayment requirements under this section.

RCW 64.34.386 - Reserve study — Demand by owners — Study not timely prepared.

(1) Where more than three years have passed since the date of the last reserve study prepared by a reserve study professional, the owners of the units to which at least twenty percent of the votes are allocated may demand, in writing, to the association that the cost of a reserve study be included in the next budget and that the study be obtained by the end of that budget year. The written demand must refer to this section. The board of directors shall, upon receipt of the written demand, provide unit owners making the demand reasonable assurance that the board of directors will include a reserve study in the next budget and, if the budget is not rejected by the owners, will arrange for the completion of a reserve study.

(2) In the event a written demand is made and a reserve study is not timely prepared, a court may order specific performance and award reasonable attorneys' fees to the prevailing party in any legal action brought to enforce this section. An association may assert unreasonable hardship as an affirmative defense in any action brought against it under this section. Without limiting this affirmative defense, an unreasonable hardship exists where the cost of preparing a reserve study would exceed ten percent of the association's annual budget.

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(3) A unit owner's duty to pay for common expenses shall not be excused because of the association's failure to comply with this section or RCW 64.34.382 through 64.34.390. A budget ratified by the unit owners under RCW 64.34.308(3) may not be invalidated because of the association's failure to comply with this section or RCW 64.34.382 through 64.34.390.

RCW 64.34.388 - Reserve study — Decision making.

Subject to RCW 64.34.386, the decisions relating to the preparation and updating of a reserve study must be made by the board of directors of the association in the exercise of the reasonable discretion of the board. Such decisions must include whether a reserve study will be prepared or updated, and whether the assistance of a reserve study professional will be utilized.

RCW 64.34.390 - Reserve study — Reserve account — Immunity from liability.

Monetary damages or any other liability may not be awarded against or imposed upon the association, the officers or board of directors of the association, or those persons who may have provided advice or assistance to the association or its officers or directors, for failure to: Establish a reserve account; have a current reserve study prepared or updated in accordance with RCW 64.34.380 through 64.34.388; or make the reserve disclosures in accordance with RCW 64.34.382 and 64.34.410(1)(oo) and 64.34.425(1)(s).

RCW 64.34.392 - Reserve account and study — Exemption — Disclosure.

(1) A condominium association with ten or fewer unit owners is not required to follow the requirements under RCW 64.34.380 through 64.34.390 if two-thirds of the owners agree to exempt the association from the requirements.

(2) The unit owners must agree to maintain an exemption under subsection (1) of this section by a two-thirds vote every three years.

(3) Notwithstanding subsections (1) and (2) of this section, a disclosure that the condominium association does not have a reserve study must be included in a unit's public offering statement as required under RCW 64.34.410 or resale certificate as required under RCW 64.34.425.

RCW 64.34.410 - Public offering statement — General provisions.

(1) A public offering statement shall contain the following information:

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(oo) If the association does not have a reserve study that has been prepared in accordance with RCW 64.34.380 and 64.34.382 or its governing documents, the following disclosure:
"This association does not have a current reserve study. The lack of a current reserve study poses certain risks to you, the purchaser. Insufficient reserves may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a common element."

(2) The public offering statement shall include copies of each of the following documents: The declaration, the survey map and plans, the articles of incorporation of the association, bylaws of the association, rules and regulations, if any, current or proposed budget for the association, the balance sheet of the association current within ninety days if assessments have been collected for ninety days or more, the association's current reserve study, if any, and the inspection and repair report or reports prepared in accordance with the requirements of RCW 64.55.090.

15.1.49 - West Virginia

CHAPTER 36B. UNIFORM COMMON INTEREST OWNERSHIP ACT.

§36B-3-102. Powers of unit owners' association.

(a) Except as provided in subsection (b), and subject to the provisions of the declaration, the association, even if unincorporated, may:

- (1) Adopt and amend bylaws and rules and regulations;
- (2) Adopt and amend budgets for revenues, expenditures, and reserves and collect assessments for common expenses from unit owners;
- (6) Regulate the use, maintenance, repair, replacement, and modification of common elements;
- (7) Cause additional improvements to be made as a part of the common elements;

§36B-4-103. Public offering statement; general provisions.

(a) Except as provided in subsection (b), a public offering statement must contain or fully and accurately disclose:

(5) Any current balance sheet and a projected budget for the association, either within or as an exhibit to the public offering statement, for one year after the date of the first conveyance

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to a purchaser and thereafter the current budget of the association, a statement of who prepared the budget and a statement of the budget's assumptions concerning occupancy and inflation factors. The budget must include, without limitation:

(i) A statement of the amount or a statement that there is no amount, included in the budget as a reserve for repairs and replacement;

(ii) A statement of any other reserves;

Note: WV Code updated with legislation passed through the 2015 Regular Session

15.1.50 – Wisconsin

703.163 Statutory reserve account.

(1) Definitions. In this section:

(a) "Reserve funds" means funds derived from assessments against unit owners that are deposited in a statutory reserve account. The term does not include funds for ordinary operations, including amounts held for operational contingencies.

(b) "Statutory reserve account" means a separate account established under this section to hold reserve funds.

(c) "Statutory reserve account statement" means a statement indicating whether a statutory reserve account has been established for a condominium and, if there is no statutory reserve account, how it is anticipated that future expenditures for the repair and replacement of common elements will be funded.

(2) Application; other reserve accounts not affected.

(a)

1. Except as provided in subds. 2. and 3., this section applies to condominiums consisting exclusively of units that are restricted to residential uses.

2. This section does not apply to a small condominium unless the declarant or the association, with the written consent of a majority of the unit votes, elects to be governed by this section.

3. This section applies to a condominium consisting of both residential and nonresidential units if the declarant or the association, with the written consent of a majority of the unit votes of the residential units and a majority of the unit votes of the nonresidential units, elects to be governed by this section.

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(b) This section does not affect a reserve account or a similar account existing on November 1, 2004, or a reserve account or similar account established on or after November 1, 2004, that is not a statutory reserve account.

(3) New condominiums; establishment of statutory reserve account by declarant.

(a) Except as provided in par. (c), the declarant of a condominium that is created on or after November 1, 2004, shall establish a statutory reserve account when the condominium is created and shall execute a statutory reserve account statement. The declarant shall determine the annual amount to be assessed unit owners for reserve funds after considering the factors under sub. (7) (a) to (e) and, if the condominium is a conversion condominium with more than 4 units, the report prepared under s. 703.33 (2) (cm) 1.

(b) Reserve fund assessments for the reserve account established under par. (a) may first be assessed on a particular unit when a certificate of occupancy has been issued that applies to that unit. The declarant may elect to defer payment of the accrued assessments for a particular unit until the first conveyance of that unit. The declarant may not defer payment of accrued reserve fund assessments for more than 5 years from the date the exterior construction of the building in which the unit is located is completed. The declarant is liable for all reserve fund assessments on a unit that accrue before the unit is conveyed. If there are accrued reserve fund assessments against a unit, the declarant shall disclose in writing to the first purchaser of the unit whether the declarant has included any accrued reserve fund assessments in the purchase price of the unit or, if not included, how any accrued assessment will be paid.

(c) The declarant may elect not to establish a statutory reserve account under par. (a) at the time the condominium is created or, at any time thereafter, may elect to terminate a statutory reserve account during the period of declarant control under s. 703.15 (2) (c). An election under this paragraph shall be made by executing a statutory reserve account statement.

(4) New condominium; determination by association to establish statutory reserve account. If a declarant has elected under sub. (3) (c) not to establish a statutory reserve account or to terminate an account, establishment of a statutory reserve account shall be addressed at the first annual meeting of the association held after, or at a special meeting of the association held within one year after, the expiration of any period of declarant control under s. 703.15 (2) (c). A statutory reserve account is established under this subsection with the written consent of a majority of the unit votes. If a statutory reserve account is established under this subsection, the association shall execute a statutory reserve account statement.

(5) Existing condominiums; statutory reserve account unless elect otherwise. The association for a condominium created before November 1, 2004, shall, within 18 months after November 1, 2004, or within 18 months after the expiration of any period of declarant control under s. 703.15 (2) (c), whichever is later, establish a statutory reserve account unless

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the association, with the written consent of a majority of the unit votes, elects not to establish a statutory reserve account. Upon the establishment of or the election not to establish a statutory reserve account, the association shall execute a statutory reserve account statement.

(6) Election by association to establish or terminate statutory reserve account.

(a) If an association elects not to establish a statutory reserve account under sub. (4) or (5), or if an association elects to terminate a statutory reserve account under par. (b), the association may at any time thereafter elect to establish a statutory reserve account with the written consent of a majority of the unit votes.

(b) An association may, at any time with the written consent of a majority of the unit votes, terminate a statutory reserve account established under par. (a) or sub. (3) (a), (4), or (5) except that a statutory reserve account established by a declarant under sub. (3) (a) may not be terminated until after the expiration of any period of declarant control under s. 703.15 (2) (c).

(c) Upon the establishment or termination of a statutory reserve account, the association shall execute a statutory reserve account statement.

(7) Reserve fund. If there is a statutory reserve account for the condominium, the annual budget adopted under s. 703.161 shall provide for reserve funds. Reserve funds may be used as provided in sub. (8). The association shall determine the amount to be assessed unit owners for reserve funds after considering all of the following:

- (a) The reserve funds currently in the statutory reserve account.
- (b) The estimated cost of repairing or replacing common elements, other than routine maintenance.
- (c) The estimated remaining useful life of common elements.
- (d) The approximate proportion of the estimated cost of repairing or replacing common elements that will be covered by the statutory reserve account and the approximate proportion that will be funded by other means.
- (e) Any other factor that the association considers relevant.

(8) Use of statutory reserve account.

(a) Except as provided in par. (b), funds in a statutory reserve account may be used for the repair and replacement of common elements, other than routine maintenance.

(b) Funds in a statutory reserve account may be used for normal repair or maintenance, customary services, or other operational costs in excess of amounts budgeted and any contingency funds available for these purposes, with the written consent of at least two-thirds of the unit votes. Funds from the statutory reserve account used under this paragraph must be replaced within 3 years from the date of withdrawal.

(9) Permitted investment of reserve funds. Reserve funds may be invested in any of the investments listed under s. 66.0603 (1m) (a).

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(10) Liability immunity. No declarant, unit owner, association, or director, officer, manager, or employee of an association is liable in connection with the establishment or termination of, or decision not to establish or terminate, a statutory reserve account or for any deficiencies in the statutory reserve account that relate to the determination of amounts to be assessed for reserve funds. This subsection is in addition to any other liability protection available under law.

(11) Recording of statutory reserve account statement. Each statutory reserve account statement executed under this section shall bear the name of the condominium as it appears on the declaration, shall be prepared in the standard format for recorded documents under s. 59.43 (2m), and shall be recorded with the register of deeds of the county where the condominium instruments are recorded.

History: 2003 a. 283.

NOTE: 2003 Wis. Act 283, which affected this section, contains extensive explanatory notes.

15.1.51 – Wyoming - No specific reserve statutes.

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