Financial Strength, Understanding Long-Term Costs

To get this article started, we need to set the stage with a little history and background.

Over the past century buildings and other facilities have become significantly more complex. We may not realize it, but to name a few: plumbing, electrical, HVAC, fire protection, and energy systems on the scale we have today are all relatively new. Additionally, new building materials and construction methods are constantly being developed, and this trend toward increasingly complex buildings and building systems is likely to remain.

Alongside escalating building complexity, we also have more complex ownerships, including the proliferation of Home Owner Associations, Condominiums, Timeshares, and Cooperatives. It is with this shift towards complex ownership of increasingly complex facilities that a strong push towards a better understanding of the true cost of a facility has arisen.

Historically, with reasonably well predicted costs, a developer purchased land and constructed a facility. After the initial development and construction, historically, these facilities are maintained and operated on an annual basis. These operational and maintenance costs are either fixed or quickly migrate to predictable norms in an annual budget. However, long-term costs like roof replacement and others have not normally been considered in any standardized way.

With the introduction of these complex ownerships, where an “Association of Owners” is now responsible for the governance of the facility, new concerns are raised. How can the funding for the long-term replacement costs of a facility’s common components be equitably distributed among the owners, and how can the upkeep of these common components be accounted for?

An example often considered is the owner who purchases a new condominium unit. He lives in the unit for 19 years, and then sells it. Now the common roof over the unit may last 20 years.

After the sale by the original owner, a second owner comes in and lives under the roof for a single year, and on the 20th year, the second owner is handed a bill for the replacement of the common roof. The original owner used 95% of the life of the roof and paid nothing, and the second owner used 5% of the life of the roof and is stuck with the entire replacement cost. Something is awry here.

Compounding the concern, the original owner purchased a unit with a new roof and sold a unit with an old roof. If the second owner was savvy, he would have accounted for the age of the common roof and negotiated a lower price for the unit. This would have lowered the comparable cost of all condominium units within the facility.

Two concerns are raised by this example. First is the equitable distribution of cost to the owner(s) based on use, and secondly how to maintain the value of a facility’s common elements.

In the mid 1980’s, U.S. Department of Housing and Urban Development (HUD) recognized these issues and began to consider an equitable way to address the aging of common elements in a jointly owned facility, and the issue of maintaining funds to repair or replace the commonly

owned elements of the facility. With this beginning, the idea of Capital Replacement Reserves was born.

During the 1990's the Foundation for Community Association Research took the lead and in 2001 published their Best Practices, Report #1, Reserve Studies/Management, http://www.cairf.org/research/bprs.pdf. Followed by the National Reserve Study Standards and Reserve Specialist (RS) Designation by Community Associations Institute (CAI) last updated in 2011, http://www.caionline.org/career/designations/Documents/RS.Application.pdf.

Presently, this has become an established industry with regional and national companies performing reserve studies either as a side service or as specialized Reserve Consultants. In addition to the typical clients from the community association world, there is now a spill-over to new clients and in particular to churches and private schools. This makes sense, a building is a building, and a roof is a roof, and a building system is, well you get the point.

So why shouldn't you take advantage of a financial tool developed and standardized by HUD and CAI for community associations for your church or school?

Let's explore this a little further and look at what is in one of these studies and how they work.

Along with the increased complexity of buildings and ownership, the relatively recent introduction of computers and appropriate analytical methods allows us to consider complex issues in a quick and inexpensive way. With this in mind, the National CAI Standards calls for the development of an inventory for a facility that includes units of measure, unit cost, useful life, remaining life, and replacement cost.

Below is a simple example of a basic inventory that includes site and grounds components, and building exteriors, interiors, and systems.

	Description	Unit	Measure	Unit Cost	Useful Life	Remaining Life	Replacement Cost
Site	Parking lot overlay	sf	20,000	$1.70	18	13	$34,000
	Concrete sidewalk	sf	500	$8.50	6	1	$4,250
	Parking lot light	ea	6	$2,100	36	31	$12,600
Exteriors	Shingle roof	sf	5,200	$4.25	25	20	$22,100
	Siding & trim	sf	6,300	$5.50	25	20	$34,650
	Window	sf	400	$42	35	30	$16,800
	Door	ea	3	$750	20	15	$2,250
	Deck	sf	320	$35	25	20	$11,200
Interiors	Carpet	sf	1,200	$3.25	10	5	$3,900
	Tile flooring	sf	2,400	$3.10	20	15	$7,440
	Lighting	ea	17	$125	20	15	$2,125
	Furnishing	sf	3,600	$5	10	5	$18,000
	Restroom	ea	2	$3,800	30	25	$7,600
Systems	Computer	ea	2	$1,300	5	0	$2,600
	Audio/video	ea	1	$1,000	5	0	$1,000
	Hot water heater	ea	1	$1,000	10	5	$1,000
	Heat pump	ea	1	$6,000	15	10	$6,000
	Fire alarm	ea	1	$4,000	15	10	$4,000

Now this simplistic example has only 18 inventory items. In a real situation, an inventory may have dozens or hundreds of items. The number and range of inventory items is what makes a study unique, and the proper modeling of issues such as age, replacement cycle, facility use, and aesthetic preference can make the development of a proper inventory for a specific facility complex. These inventory items however with their associated costs and replacement cycles constitute only the raw building blocks of a reserve study. This is just the data and not particularly useful in considering replacement reserves, yet!

But, what if we start looking at this inventory data over a 30-year period, what would we start to see?

In a calendar format, this data may look something like this.

Item	2012	$
14	Computer	$2,600
15	Audio/video	$1,000
	Total Scheduled Replacements	$3,600

Item	2013	$
2	Concrete sidewalk	$4,250
	Total Scheduled Replacements	$4,250

Item	2014	$
	No Scheduled Replacements	

Item	2015	$
	No Scheduled Replacements	

Item	2016	$
	No Scheduled Replacements	

Item	2017	$
9	Carpet	$3,900
12	Furnishing	$18,000
14	Computer	$2,600
15	Audio/video	$1,000
16	Hot water heater	$1,000
	Total Scheduled Replacements	$26,500

Notice that some years may have many items, in others a few, and in some years none. For those years however with scheduled funding, there is an annual total.

Please note that this calendar should not be viewed as a “To Do” list, but rather, as a funding recommendation that provides “*an appropriate amount of funding in an appropriate time frame, should the governing body choose to do the work.*”

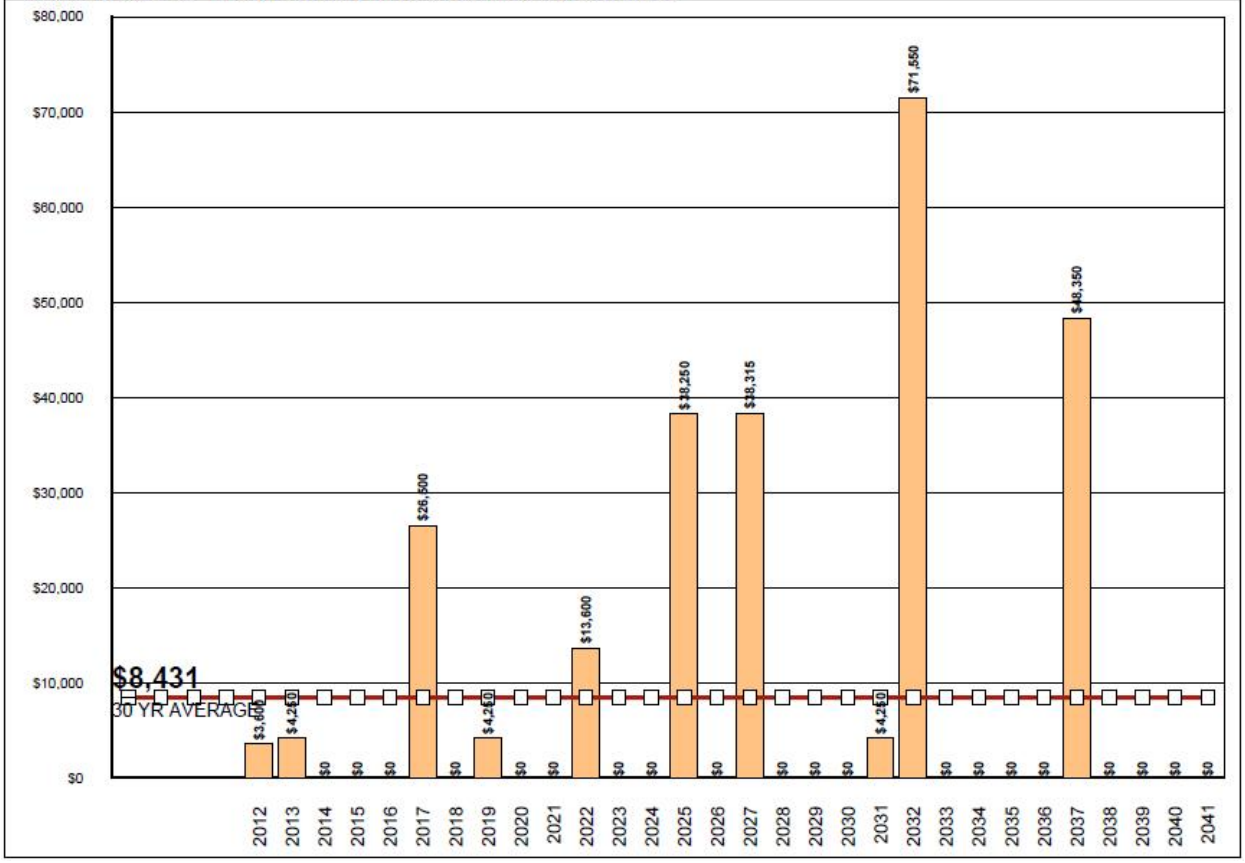
In other terms, the reserve recommendation is a funding plan for specific items of work and not a spending model.

But, I digress slightly, let’s go back to the annual totals.

If we graph these annual totals over time, we may see something like what is shown in Graph 1 (below). Again, annual projected expenditures shown over a 30-year period.

Graph #1. Annual Expenditures for Projected Replacements

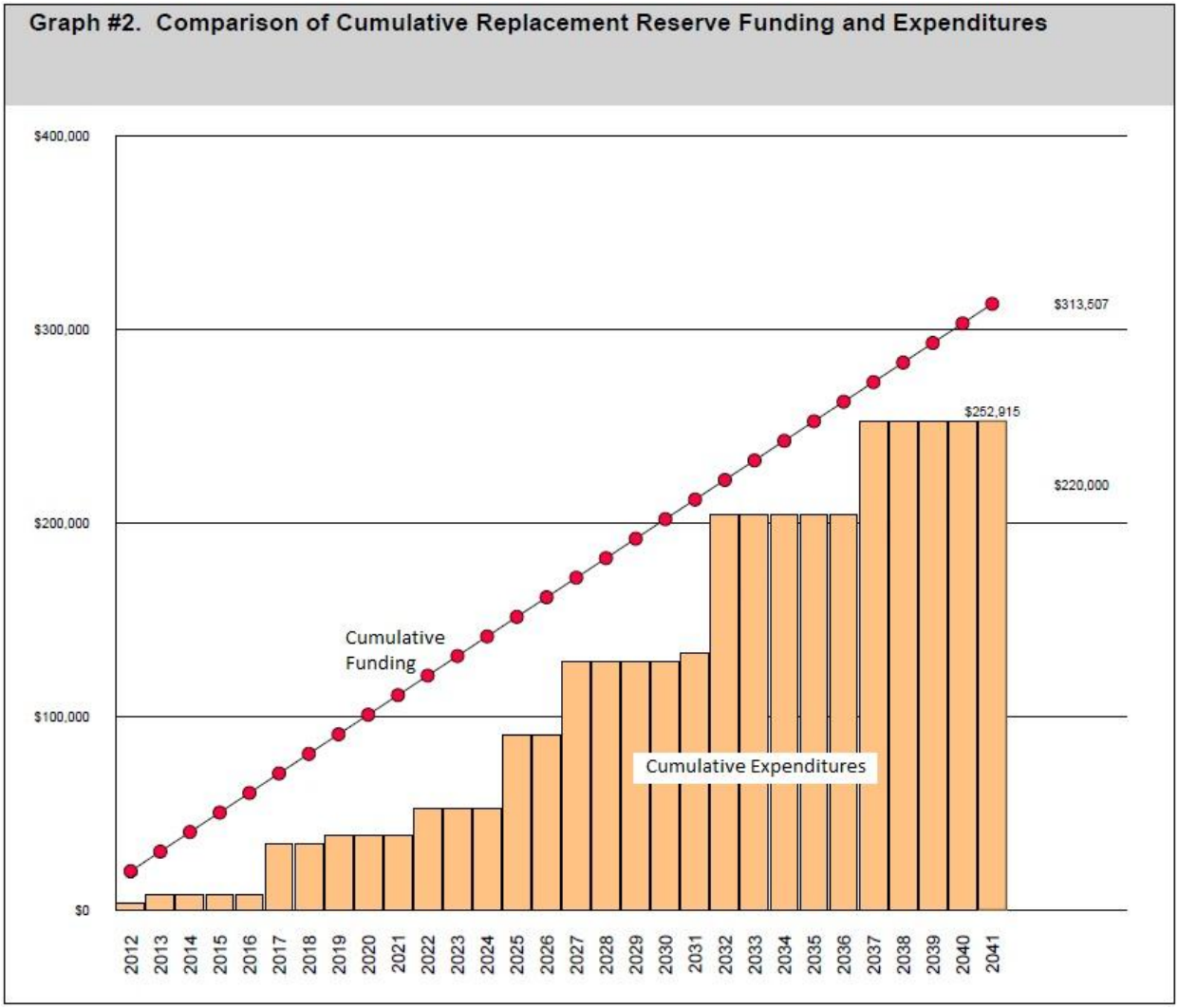
This bar graph summarizes annual expenditures for the $252,915 of Projected Replacements identified in the Replacement Reserve Inventory over the 30-year Study Period. The red line shows the average annual expenditure of $8,431.



Now this may be of some interest, but again it is still not very useful in developing a long-term funding plan to meet future expenditures. We need one more step.

This next step is to look at these annual projected expenditures in a cumulative model.

Cumulative expenditures will allow for cumulative funding, and cumulative funding allows for estimating annually for predictable expenditures in the future. With this cumulative approach, anticipated long-term replacement costs can fit into any annual budget.



So with this, let's revisit the example of the unit owner selling in the 19th year.

With a proper reserve funding plan in place, the initial unit owner would have paid for the use of the roof annually or monthly as they lived under and had the benefit of the roof. The second owner would have paid similarly for their use too. In this way, the reserves built-up over the 20-year life of the roof would have funded the replacement equitably between all owners throughout the community, irrespective of ownership duration.

Furthermore, from an educated position of understanding the long-term cycles and cost of the facility, the governing body of this facility would be in a position of financial strength, proactively ready to maintain the roof and all of the other common elements of the building. This approach would mitigate any negative impacts stemming from the condition of the common elements to the comparable price of the condominium units. The long-term replacements and costs would have been documented and accounted for, and proper replacement funds established.

So now, how can Reserve Funding work more specifically for your Church?

- Protect your worship and missionary calling with a fuller understanding of your secular responsibilities, including the predictable long-term costs associated with the replacement of your facility's capital assets.
- Keep your banquet and other facilities attractive and inviting, promoting their continued desirability and use by the congregation and greater community, and thereby promoting fellowship focused on the goals of your calling.
- Practice true stewardship by understanding the funding needed to maintain the facilities bequeathed to your care, and show by example and practice the message of good stewardship to your congregation, major donors, and community.

How about Long-Term Financial planning for your School?

- Keep the education of your students as the top priority, by developing a strategic plan and funding model for the replacement of your facilities' components, including your hi-tech and traditional educational systems.
- Project long-term capital replacement costs equitably to your tuition fees and other revenue streams.
- Track and understand your facility more fully, including all of its components and subsystems, so you can be in a proactive financial position with respect to the funding of your capital replacements.

In wrapping this up then, more complex buildings and ownerships have resulted in the establishment of a deeper understanding of facility costs and the equitable distribution of these costs. With this need to look deeper at the long-term costs associated with facilities, a new Capital Replacement Reserve industry is born. One of the ramifications of this evolution is that any governing body can now systematically approach their facilities long-term replacement costs, and with that understanding, a long-term funding plan can fit into your annual budget.

It is no longer a question of when the roof of your facility will need to be replaced, that is predictable. But rather, will you be on target financially as the inevitability of the roof replacement approaches. Capital Replacement Reserve planning will put your Church and School budget in a position of **Financial Strength by Understanding the Long-Term Costs of Your Facility**.

William I Scrivens, RS, author, January 2013

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