

## A Simple Example

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# A Simple Example

## The Problem

Mr. Jones purchases a new condominium unit, and he lives in his unit, selling it to Mr. Smith in 19 years. The common roof of the condominium building has a useful life of 20 years, and a year after the sale, Mr. Smith is handed a \$2,000 Special Assessment for the replacement of the common roof of the building.

Mr. Jones, the original owner, used 95% of the life of the roof and paid nothing. The second owner, Mr. Smith, used 5% of the life of the roof, and he is stuck with the entire roof replacement cost.

Something is awry here.

Compounding this concern, Mr. Jones purchased a unit with a new roof and sold a unit with an old roof. If Mr. Smith was savvy, he would have accounted for the age of the common roof and lack of reserves, and negotiated a lower price for the unit. This would have lowered the comparable cost of all condominium units within the building.

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 the common elements of the facility.

## A Little History

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, a Reserve Study industry has emerged, with regional and national companies performing reserve studies. Reserve Study providers provide this service as either a side service to their other offerings or as specialized reserve study consultants. In addition to the typical clients from the community association world, there is now a spill-over to new clients including country clubs, resorts, churches, and private schools to name a few.

## The Solution

So, what is in a Reserve Study and how they work. The National CAI Standards calls for the development of an inventory that includes the following:

- units of measure
- unit cost
- useful life
- remaining life
- replacement cost

Below is a simple example of a basic inventory that includes site and ground components, building exterior components, interior components, and building 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

This is a very simple example with only 18 inventory items. In a real situation, an inventory may have dozens, hundreds, and even thousands of items. The number and array of inventory items is what makes a reserve study unique, and the proper modeling of issues such as age, replacement cycle, aesthetic preference, and facility use makes the development of a proper inventory for a specific facility challenging.

An inventory of items with their associated costs and cycles constitutes the building blocks of a reserve study, but this is just data and not particularly useful in considering replacement reserves. But, what if we start looking at this inventory data over say a 30-year period, what would we start to see?

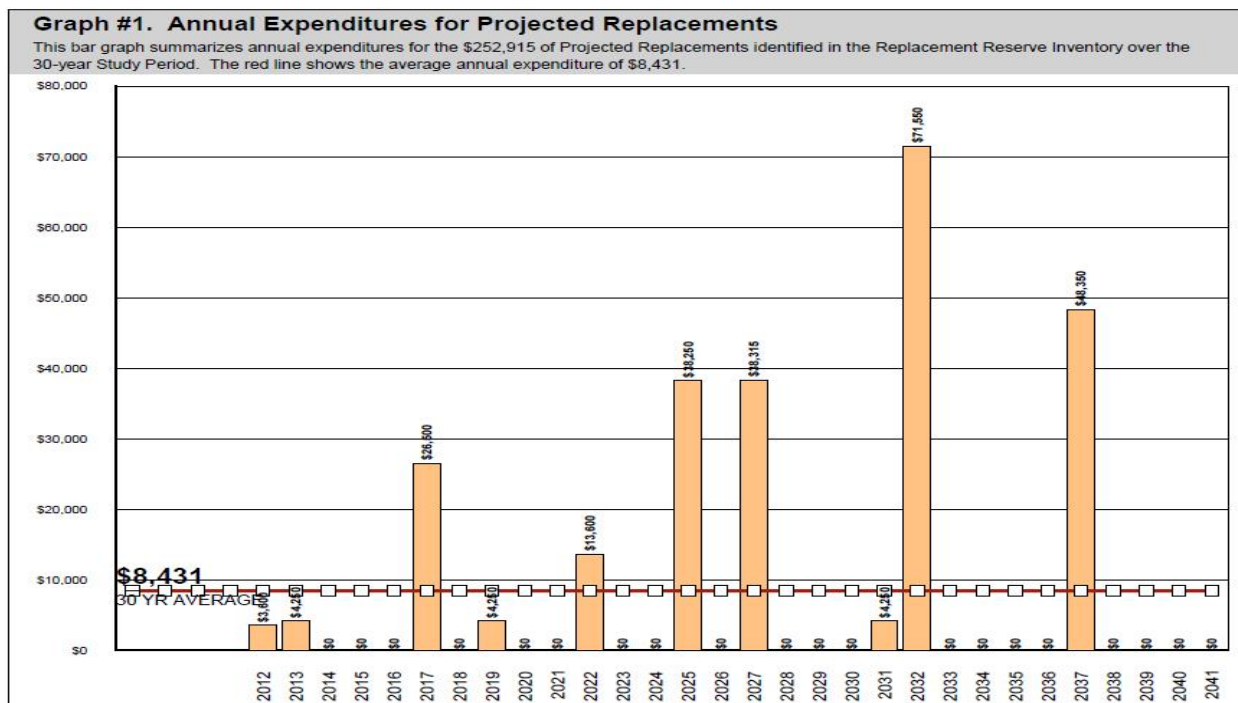
In a calendar format, this data may look something like this.

Item	2012	\$	Item	2013	\$	Item	2014	\$
14	Computer	\$2,600	2	Concrete sidewalk	\$4,250			
15	Audio/video	\$1,000						
Total Scheduled Replacements		\$3,600	Total Scheduled Replacements		\$4,250	No Scheduled Replacements		
Item	2015	\$	Item	2016	\$	Item	2017	\$
No Scheduled Replacements			No Scheduled Replacements			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 none in others. For those years however with scheduled funding for work, there is an annual total.

Please notice that we are saying “scheduled funding for work” and not a “to do list”. The purpose of a reserve study is to provide appropriate funding in an appropriate time frame should the governing body of a facility decide to do some item of work.

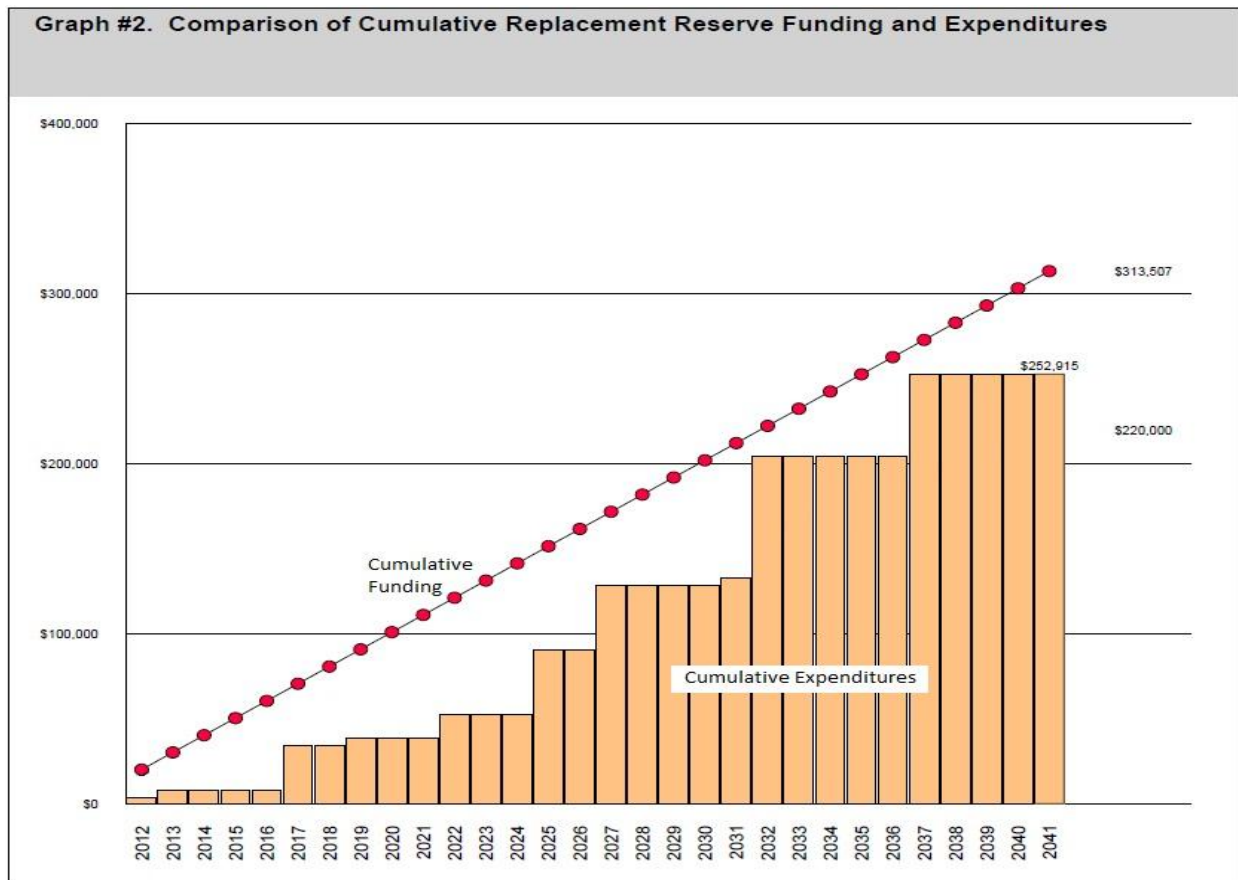
If we now look at these annual totals in a graphical format, we may see something like what is shown in Graph 1 (below). These are the annual projected expenditures shown over a 30-year period.



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 predicting annually for expenditures into the future. With this cumulative approach, anticipated long-term replacement costs can fit into any annual budget on a monthly basis.



With this approach, let us go back to our example of Mr. Jones and Mr. Smith. With proper reserve funding in place, Mr. Jones would have paid monthly as he lived under and had the benefit of the roof, along with all of the other common elements of the condominium. Mr. Smith would have paid monthly for his use too. The reserves built-up over the 20-year life of the roof would have funded the replacement equitably between all of the owners throughout the community regardless of their ownership.

Furthermore, the condominium would be proactively ready to replace or refurbish all of the common elements of the building. This approach mitigates any negative impacts stemming from the condition of the common elements with respect 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, collected, and saved.

So, what benefits can Reserve Funding provide for your facility?

Legal Considerations:

- Provides compliance with State Statutes, if applicable.
- May fulfill the requirements of you community's Governing Documents.
- Fulfills IRS Guidelines.
- Meets FHA & bank loan requirements.
- Fulfills the fiduciary duty of the Board or other governing body.

Practical Considerations:

- Provides sound financial planning.
- Justifies and documents appropriate reserve funding for an annual budget.
- Equitably distributes costs to members over time.
- Avoids special assessments.

Ethical Considerations:

- Avoids kicking financial obligations down the road to future residents.
- Everybody pays their fair share.

In wrapping up, more complex buildings and ownership have resulted in establishing a deeper understanding of facility costs and the equitable distribution of those costs. With this need to look deeper at the long-term costs associated with our facilities, a new Capital Replacement Reserve industry was born.

One of the ramifications of this evolution is that any facility can now approach their annual budget with a systematic long-term understanding of their facility's capital replacement costs. It is no longer a question of when the roof or any other capital component will need to be replaced; these are predictable. Rather, will your facility be on target financially as the inevitability of these replacements approach?



**Miller Dodson Associates, Inc.** is recognized nationally as one of the leading consultants specializing in the Reserve Study field, serving community associations, resorts, country clubs, golf courses, religious institutions, and educational facilities for about 500 clients annually throughout the United States and abroad. Headquartered in Annapolis, Maryland, Miller-Dodson provides expert professional services through its Maryland staff and through its National network of local and regional Reserve Specialists and Analysts.

**William I Scrivens, RS**, author May 2014

*Looking for more information about replacement reserves? Please visit our website at [mdareserves.com](http://mdareserves.com) or call us at 800.850.2835. Thank you for your interest.*