



Underfunded Reserves: A Community's Nightmare

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The primary purpose of a capital reserve funding analysis is to offer recommendations as to the amount of monies an association or other form of ownership should fund on a yearly basis for the future replacement of commonly owned elements of a single or multi-family development. The analysis and recommendations are important in that they help to avoid possible future special assessments of the individual unit owners. The analysis should be in the best interest of the community, period. The analysis should take into account the site specific existing conditions, their useful life, and the realistic replacement costs based upon actual material costs and the site specific individual item's method of reconstruction.

The primary purpose of a capital reserve funding analysis is **not** to attempt to reduce or maintain a community's monthly maintenance fees.

Unfortunately, and far too often, associations are finding themselves in an underfunded position at the time of the inception of a replacement project. Whether reconstructing roadways, sidewalks, roofs, or other aspects of the community, the association relies on the funding that has been recommended and established over the useful life of the item. The association schedules and bids the reconstruction project only to find that the proper funds are not available. The recommended reserve funding useful life was not accurate, the item's replacement cost was wrong and/or the unit quantities were smaller than what was actually constructed. This results in special assessments, community dissention, lost property value, and ill feelings toward the management company, board members, and residents.

The problem always seems to be that the original and/or updated analyses were not realistic, not site specific or not accurate. Errors or deficiencies in either the original capital reserve analysis or, many times, the updated analysis can cause this dreaded position.

This unfortunate situation is, many times, the result of how these analyses are taken for granted by the expert preparing the study. Typically, site specific and qualified inspections and recommendations are not performed. The errors or deficiencies typically occur in the most important aspects of these studies and are as follows:

Useful life

Every item listed in the funding table or schedule has a useful life associated with it. The useful life indicates the lifespan that the item should attain prior to its replacement, assuming it was installed properly. Standard useful lives are, often times, based solely upon standards used in the engineering industry. These standards are typically taken exclusively from information listed in life cycle analysis publications and/or manufacturers specifications.

This can result in underfunding.

Site specific useful lives must be used. Actual conditions must be inspected and changes (reductions or increases) must be made to the projected useful lives as conditions change. In addition, aesthetics usually play a part in the replacement of an element. Structurally, an item may be sound, although the association may consider that the aesthetics of that particular item detract from the community, therefore requiring replacement prior to the item reaching its full useful life as determined by the manufacturer or an industry standard.

Often times, items are not individually (site specific) evaluated for remaining useful life. The consequence can



result in a significantly higher actual replacement cost due to the accelerated (excessive) degradation of that item. The item should have been replaced or reconstructed before this accelerated degradation occurred. Qualified, periodic inspection is paramount in reducing this possibility.

Quantities

The quantities shown in the funding table or analysis are many times taken from site plans, architectural plans, or a previous funding table.

This can result in underfunding.

The quantities used in these studies should be verified by the as built conditions. This must be done for initial analysis and should always be field checked on subsequent studies. Failure to provide an association with the correct replacement quantities may result in a significant underfunded condition down the road.

Replacement costs

The replacement costs shown in the funding table or analysis are many times taken from an estimating book or, worse, an outdated estimating book.

This can result in underfunding!

While the unit costs provided in the funding table for the replacement of the capital reserve items should be based upon a number of sources, including published documentation on replacement costs, more importantly they should be based upon experience in site and building construction. The individual reconstruction or replacement of each item should be analyzed and the resulting unit costs should be adjusted accordingly. Individual (site-specific) characteristics affecting the unit's costs are different on every site and the replacement costs should be adjusted accordingly. Existing site conditions, the size and scope of the future replacement project, the job access locations, the site restoration costs and presence of existing components are all variables that affect the item's replacement costs. Many times the unit replacement costs shown in these studies barely cover the materials costs for the item.

This is an unacceptable philosophy, and is by far the most glaring and unexplainable reason for underfunded reserves. This must be corrected.

Combine all three of these "mistakes" made by the professional during the funding analysis and the association's reserve funding could be at a disastrous level.

The cash flow analysis, be careful!

Your current reserve funding analysis may contain a twenty (20) or thirty (30) year cash flow analysis as part of the report. As discussed above, Reserve spending is dependent upon many variables. A reserve item's condition can change significantly over time due to deficient original construction or other variables (inferior materials, weather, vandalism etc.). The result is a remaining useful life that can be drastically reduced. Qualified inspections, realistic, site specific remaining life analysis and updating the reserve funding analysis every three (3) years will adjust these changing conditions and funding requirements.

Similarly, the replacement costs of a reserved item can change dramatically. Aside from the factors already mentioned, the costs of materials and labor are constantly changing. New materials and technologies appear



every day. Reserve funding updates should adjust the funding requirements accordingly. These variables also affect cash flow on a regular basis.

In addition, an association's actual funding can change drastically from year to year. Catastrophic events or unpredicted spending (snow removal, storm damage, etc.) does occur from time to time and may also affect cash flow.

For the above reasons, projecting cash flow over a thirty (30) year period is not meant to be a long term tool for an association to use. The expenditure costs demonstrate that the association's reserve funding is on course toward proper funding. The cash flow numbers are all relative and dependent on each other and an unchanging, perfect world. Compound any of the problems associated with the deficient funding analysis (discussed above) and the result is that the thirty (30) year cash flow projection is less effective as time passes. The consequence is an underfunded association and a potential financial disaster to its residents.

Please be aware, however, that the cash flow analysis is an effective tool for adjusting the yearly funding requirements as long as the reserve analysis updates are performed regularly and performed accurately as discussed above.

Avoiding the Nightmare

Any one of the above-discussed inaccuracies in a capital reserve study can cause incorrect funding for a community. A combination of the errors can be disastrous. Continued periodic reserve updates using actual site conditions and realistic replacement dates and costs is a much more effective way (if not the only way) to ensure that an association's capital replacement items are being properly funded. The qualified inspection of the items by a licensed professional engineer (P.E.) and the preparation of the analysis by a CAI reserve specialist (R.S.) ensures that an accurate evaluation is made. The periodic update allows for adjustments to be made for useful life, unit quantity, unit cost, or additional items to be funded as required to avoid the "nightmare" of the special assessment.

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