

INTRODUCTION TO THE CRF MODELER

A SIMPLE ANALOGY

Let's say you plan to cross the ocean in a ship. Would you rather navigate your course using old-fashioned dead reckoning techniques or satellite-based GPS with a chart plotter read-out that pinpoints your exact position and heading every step of the way? In this case, the choice for technology is clear. And it's no different when you're charting a course over the next few years for how you will fund the major capital expenses for your condominium. You need a solution guaranteed to get you to your destination while maintaining a minimum desired threshold reserve amount, and showing you exactly where you will be year-to-year.

WHAT IS THE MODELER?

The Capital and Reserve Funding Modeler (**CRF Modeler**) is a powerful, easy to use software tool for developing **ideal capital funding strategies** for condominium associations. It allows you to evaluate various strategies, such as building reserves, taking out a loan, levying a special assessment, or combinations of these. Most importantly, it can help identify ways to pay for major projects (deferred maintenance) that may have appeared too costly to consider.

The foundational data underlying the funding strategy is a **Reserve Study** (or alternatively a list of anticipated capital projects with cost estimates and a planned implementation schedule). Revisions can easily be made to both cost and scheduling assumptions, both of which will impact project costs based on inflation. **Major deferred capital projects** may be isolated and various funding models analyzed.

WHY A MODELER AND WHY NOW?

1. Condo Associations and Property Management Companies have devoted most of their attention to operating costs, and left capital expense planning a distant second.
2. Many capital projects have been deferred for many years and are becoming increasingly visible to homeowners as infrastructure issues rise to the surface.
3. Boards and Property Managers are typically left to their own devices to develop capital funding strategies based on gut feel rather than rigorous analysis.
4. Few tools are available to assist with capital expense "What-if" modeling. The tools that are available are difficult to learn and not easy to use as "what-if" modelers.
5. Many condominiums built in the 60's, 70's, 80's and even newer are now in need of expensive capital renovation projects that have been deferred over the years as an expedient way to push the problems into the future.
6. The increasing urgency to address deferred maintenance problems cannot be deferred any longer. The time has come for Boards to engage in responsible planning and action.

FEATURES OF THE MODELER

1. The Dashboard displays all user inputs and results on a single screen, for optimal ease of use.
2. The Dashboard includes a main chart showing all capital and reserve inflows and outflows by category, with ending reserve balance for each year. A second graph displays the average unit's assessment amount and percent increase/decrease by year in regular and special assessments.
3. Forecasts future years' ending reserve balances over a user-defined period of years.
4. Allows easy adjustment to replacement costs and/or shifting of future capital expenses based on enhanced local knowledge.
5. Provides easy updating of future contributions to reserves.
6. Provides well-documented instructions for use, including screen shots.
7. Sophisticated, yet Simple means it's Easy for You

Although the Modeler is a sophisticated forecasting tool, it uses basic Excel features and functions so that **it works in any environment**. That means it will work with any version of Excel, does not require any Add-Ins to be installed, does not use newer functions that may not be supported, and does not rely on any macros or VBA programming usually found in workbooks of this complexity. It works in virtually any environment (Windows or Apple) without restrictions or requiring special permissions. In short, **it just works** as soon as you download it to your computer. No custom setup. no fuss, no hassle

It's also virtually "**unbreakable**" because its formulas and fixed contents are protected. The only parts that can be entered or changed are the data associated with your specific condo and situation. So don't worry about breaking it.

WHAT CAN THE MODELER DO FOR YOU?

- 1. How Much Should We Contribute to Reserves**
 - a. What percent increases are needed in each of the next 5 years?
 - b. What level of contribution is needed to maintain a minimum desired threshold?
 - c. Can we reprioritize and/or reschedule projects to better balance them out?
 - d. Can contributions to reserves be reduced? When?
- 2. Increase Reserves to a Healthy Level and/or Maintain Adequate or Minimum Reserves**
 - a. How much is sufficient to pay for anticipated capital projects.
 - b. How many years will it take to increase reserves?
 - c. How much can we increase reserves without causing hardship to the homeowners?
- 3. Fund Deferred Maintenance or Unexpected Capital Projects**
 - a. When can we start the project?
 - b. How will the project affect our reserve balance? Will it fall below our threshold?
 - c. Do we need to increase reserves before beginning the project(s)?

- d. At what point will deferring the project increase its future cost more than the build-up in reserves?
 - e. How long will be needed to build reserves (before the project(s) can be started.)
 - f. Is our project scheduling optimal? (Are all equally urgent? Can they be spread out?)
 - g. Compare the effects of increasing regular reserves vs a special assessment.
 - h. Is an association loan necessary or can the association fund financing from reserves?.
 - i. Is a special assessment or chargeback needed? (If it can't be paid by reserves alone)
4. **Identify the optimal factors for each funding vehicle**, and evaluate combinations of factors:
- a. **Contributions to Regular Reserves** over the next 5 years
 - b. **Special Assessment** amount, term, start date, interest rate, due on sale, etc.
 - c. **Association Loan** amount, term, start date, LOC period, interest rate, etc.

A CASE STUDY SUMMARY

Let's say that your building needs to replace its risers. A pipe testing company found that there is essentially no useful life remaining in the hot water risers. The question now become how to balance the following factors to develop an optimal funding strategy:

1. How quickly do you want to replace the risers to minimize the chances of catastrophic water damage: One tier per year? Two or three tiers per year, or more? How will you balance the need to pay for new risers with paying for repairs caused by water damage?
2. How much should you increase assessments to build reserves to pay for the risers?
3. Will you take out a loan to pay for the risers? If so, how much is needed?
4. Will you levy a special assessment, and if so, how much?

USING THE RESERVE STUDY AS AN ACCURATE BASE

The Reserve Study is an important basis upon which to plan capital funding, but until it's reviewed and refined, it is **just a guide**, based on statistical averages, rather than intimate knowledge of the building. **Before using the Modeler**, the Reserve Study should be turned into a **genuinely useful basis** for planning your capital expenditures and determining annual contribution to reserves. To do this:

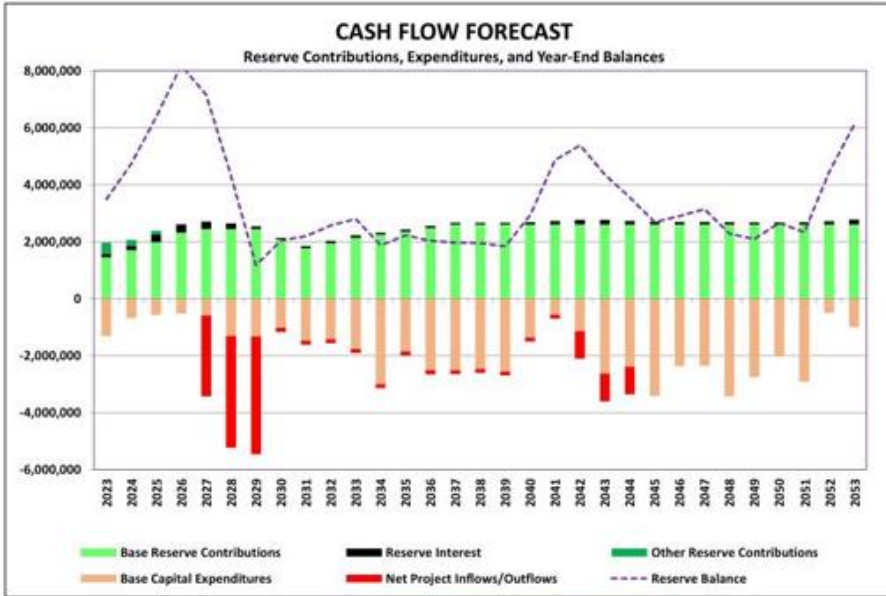
1. **Meet with the Property Manager, Chief Engineer**, and anyone else with intimate local knowledge of the building components listed to **review, revise, prioritize, and reschedule capital projects**. Review total cost, start date, and duration if phased over multiple years. Non-urgent projects can be deferred to years with less total capital expenses.
2. **Replace any amounts** that are sometimes arbitrarily plugged into the first few years of the study (these are known as "**Additional Contributions to Reserves**") Replace them with realistic contributions from regular assessments, or if needed, a Special Assessment to build-up reserves.
3. **Ensure that needed contributions from unit owners are reasonable and can be justified:**
 - a. For example, one key metric is that Special Assessments should be less than 20% of the average market value of the units.
 - b. Another metric is that annual increases to Regular Assessments should be less than 15%.

WHAT COMPETITORS OFFER

There are no real competitors to the CRF Modeler. Similar services exist that provide a subset of functions found in the Modeler, but none provides a full modeling capability.

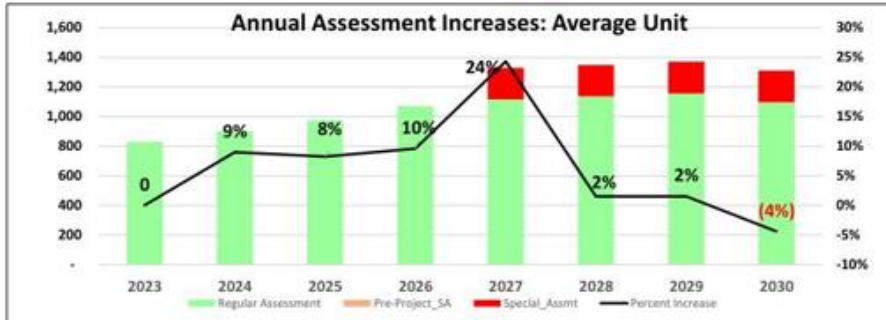
Vendor	Reserve Study Integration	Reserve Study Modeling	Special Assessment and Loan Modeling	COST/ Hourly
Optimal Condo Solutions	Yes	Yes	Yes	\$1,500 \$75/Hr
Reserve Study Companies	Yes	Yes	No	\$200+/Hr
Property Management Companies	No	No	Yes	\$2,500/ \$150+/Hr
3 rd Party Apps	No	No	Yes	\$500/ N/A

Modeler Dashboard- Using sample data



High & Low Reserve Balances		Year
High Balance	8,176,269	2026
Low Balance	1,169,229	2029

OK



ANNUAL ASSESSMENT INCREASES: AVERAGE UNIT									
	2023	2024	2025	2026	2027	2028	2029	2030	2031
Regular Assessment	827	902	976	1,070	1,116	1,136	1,157	1,097	1,051
Pre-Project Special	-	-	-	-	-	-	-	-	-
Special Assmnt	-	-	-	-	214	214	214	214	214
TOTAL ASSMT	827	902	976	1,070	1,330	1,350	1,371	1,311	1,265
Year over Year Increase		9%	8%	10%	24%	2%	2%	(4%)	(4%)
Cumulative Increase		9%	18%	29%	61%	63%	66%	58%	53%
Average Annual Increase		9%	9%	10%	15%	13%	11%	8%	7%
Average Annual Compound Increase					12.6%	MANUAL		MANUAL	5.4%

PROJECT COSTS		Ratios	
Total Project Cost	20,000,000	22,950,460	Adjusted for Inflation
First Year Payments Due	2027	15,508,330	Total Cost to Assoc
# Years Project Payments	3	8,385,842	(Project+Loan Int-Spial)
Estimated Inflation Rate	3.50%	% Project to Market (Value of Bldg)	29%

ASSOCIATION LOAN		% Loan to Market (Value of Bldg)	
Loan Amount	10,000,000	16,010,618	Total Repayment
Loan Term (Years)	15	2030	1st Repayment Year
Line of Credit period (years)	3	2027	1st Disbursement Year
Interest Rate	5.35%	6.50%	LOC (interest only) Rate
Loan Fees	146,000	970,975	Annual Repaymt Amount

CHARGEBACK / Special Assessment		% Special to Market (Value of Bldg)	
Association Funded?	Y	(required by IL Condo Act)	
Special Assmt Amount	10,000,000	13,452,749	Total Pymts less Delinqnt
Special Assmt Term in years	15	N	Balance Due on Sale?
First Payment Due Year	2027	3%	% Sales/Yr
Interest Rate	5.35%	AVG Unit Total Payment	\$26,455
Lump Sum % of Units	10%	AVG Unit Monthly Payment	\$214
Percent Delinquency	5%	% Increase over Regular Assessment	19%

PRE-PROJECT SPECIAL ASSESSMENT		% Both Specials to Market	
Association Funded?	Y	(required by IL Condo Act)	
Pre-Project SA Amount	-	0	Total Pymts less Delinqnt
Pre-Project SA Term	3	N	Balance Due on Sale?
First Payment Due	2024	3%	% Sales/Yr
Interest Rate	0.00%	AVG Unit Total Payment	\$0
Lump Sum % of Units	20%	AVG Unit Monthly Payment	\$0
Percent Delinquency	5%	% Increase over Regular Assessment	

CONTRIBUTIONS TO RESERVES						
	2024	2025	2026	2027	2028	2029
% Increase to RSV Contrib	17%	17%	17%	5%	0%	0%
% Regular Assmt Increase	9%	8%	10%	4%	2%	2%
AVG Regular RSV \$ Increase	74	74	94	46	20	21
AVG Reg RSV Mo Contrib	902	976	1,070	1,116	1,136	1,157
Estimated Interest Rates	4.00%	5.00%	4.00%	3.50%	3.50%	3.50%

CONTRIBUTIONS TO RESERVES - continued						
	2030-31	2032-33	34-35	36-37	38-39	2040+
% Increase to RSV Contrib	(15%)	10%	5%	5%	0%	0%
% Regular Assmt Increase	(5%)	6%	4%	4%	2%	2%
AVG Regular RSV \$ Increase	(60)	63	49	53	29	31
AVG Reg RSV Mo Contrib	1,097	1,114	1,229	1,332	1,414	1,474
Estimated Interest Rates	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Special Assessment to Market Value Analysis		
	Average Unit	Building
Current Market Value	180,000	68,040,000
Pre-Project + Special Assmt	26,455	
% to Current Market	15%	OK
Improvement Value	30,000	
Future Market Value	210,000	79,380,000
% to Future Market	13%	OK