

COMPONENT METHOD (cont'd)

- **Current Funding Objective.** A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 96 Projected Replacements. The total, \$720,722, is the Current Funding Objective.

For an example, consider a very simple Replacement Reserve Inventory with one Projected Replacement, a fence with a \$1,000 Replacement Cost, a Normal Economic Life of 10 years, and a Remaining Economic Life of 2 years. A contribution to Replacement Reserves of \$100 (\$1,000 + 10 years) should have been made in each of the previous 8 years (10 years - 2 years). The result is a Current Funding Objective of \$800 (8 years x \$100 per year).

- **Funding Percentage.** The Funding Percentage is calculated by dividing the Beginning Balance (\$80,000) by the Current Funding Objective (\$720,722). At Your HOA the Funding Percentage is 11.1%
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 96 Projected Replacements in the Replacement Reserve Inventory. The Current Funding Objective for each Projected Replacement is multiplied by the Funding Percentage and these funds are then "locked" into the account of each item.

If we relate this calculation back to our fence example, it means that the Association has not accumulated \$800 in Reserves (the Funding Objective), but rather at 11.1 percent funded, there is \$89 in the account for the fence.

- **Annual Funding.** The Recommended Annual Funding of Replacement Reserves is then calculated for each Projected Replacement. The funds allocated to the account of the Projected Replacement are subtracted from the Replacement Cost. The result is then divided by the number of years until replacement, and the result is the annual funding for each of the Projected Replacements. The sum of these is \$207,340, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2016).

In our fence example, the \$89 in the account is subtracted from the \$1,000 Total Replacement Cost and divided by the 2 years that remain before replacement, resulting in an annual deposit of \$456. Next year, the deposit remains \$456, but in the third year, the fence is replaced and the annual funding adjusts to \$100.

- **Adjustment to the Component Method for interest and inflation.** The calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, inflation, or a constant annual increase in Annual Funding of Replacement Reserves. The Component Method is a very conservative method and if the Analysis is updated regularly, adequate funding will be maintained without the need for adjustments.

Component Method Data - Years 1 through 30

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning balance	\$80,000									
Recommended annual funding	\$207,340	\$176,268	\$146,778	\$141,864	\$135,035	\$135,035	\$132,629	\$120,456	\$108,684	\$97,199
Interest on reserves										
Expenditures	\$44,151	\$104,881	\$36,186	\$41,215	\$8,400	\$37,754	\$209,492	\$262,278	\$215,991	\$34,968
Year end balance	\$243,188	\$314,576	\$425,167	\$525,816	\$652,451	\$749,732	\$672,870	\$531,048	\$423,741	\$485,973
Cumulative Expenditures	\$44,151	\$149,032	\$185,218	\$226,433	\$234,833	\$272,587	\$482,078	\$744,356	\$960,347	\$995,315
Cumulative Receipts	\$287,340	\$463,608	\$610,385	\$752,249	\$887,284	\$1,022,319	\$1,154,948	\$1,275,404	\$1,384,088	\$1,481,288
Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Recommended annual funding	\$96,455	\$95,762	\$95,233	\$95,233	\$94,399	\$94,399	\$94,399	\$94,345	\$94,345	\$94,507
Interest on reserves										
Expenditures	\$60,055	\$89,349	\$29,630	\$81,106	\$27,309	\$16,249	\$71,992	\$14,885	\$79,885	\$68,062
Year end balance	\$522,373	\$528,786	\$594,389	\$608,515	\$675,605	\$753,755	\$776,162	\$855,623	\$870,083	\$896,529
Cumulative Expenditures	\$1,055,369	\$1,144,719	\$1,174,349	\$1,255,455	\$1,282,764	\$1,299,013	\$1,371,005	\$1,385,890	\$1,465,775	\$1,533,837
Cumulative Receipts	\$1,577,742	\$1,673,505	\$1,768,737	\$1,863,970	\$1,958,369	\$2,052,768	\$2,147,167	\$2,241,513	\$2,335,858	\$2,430,365
Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Recommended annual funding	\$94,507	\$95,101	\$95,040	\$95,040	\$94,893	\$94,893	\$94,893	\$94,884	\$94,884	\$94,306
Interest on reserves										
Expenditures	\$69,733	\$117,149	\$29,630	\$20,065	\$13,680	\$73,625	\$247,940	\$160,197	\$283,971	\$38,473
Year end balance	\$921,303	\$899,255	\$964,665	\$1,039,640	\$1,120,853	\$1,142,121	\$989,075	\$923,762	\$734,676	\$790,509
Cumulative Expenditures	\$1,603,569	\$1,720,718	\$1,750,348	\$1,770,413	\$1,784,093	\$1,857,719	\$2,105,658	\$2,265,855	\$2,549,826	\$2,588,299
Cumulative Receipts	\$2,524,873	\$2,619,974	\$2,715,013	\$2,810,053	\$2,904,946	\$2,999,840	\$3,094,733	\$3,189,618	\$3,284,502	\$3,378,808

COMPONENT METHOD ACCOUNTING SUMMARY

This Your HOA - Component Method Accounting Summary is an attachment to the Your HOA - Replacement Reserve Study dated August 7, 2015 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 96 Projected Replacements listed in the Your HOA Replacement Reserve Inventory has been assigned to one of 8 categories. The following information is summarized by category in each report:
 - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
 - Cost of all Scheduled Replacements in each category.
 - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
 - Cost of Projected Replacements in the report period.
 - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Component Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$80,000 Beginning Balance (at the start of the Study Year) and the \$530,385 of additional Replacement Reserve funding from 2016 to 2018 (as calculated in the Replacement Reserve Analysis) to each of the 96 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis. The calculated data includes:
 - Identification and estimated cost of each Projected Replacement schedule in years 2016 through 2018.
 - Allocation of the \$80,000 Beginning Balance to the Projected Replacements by the Component Method.
 - Allocation of the \$530,385 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by the Component Method.

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 96 Projected Replacements included in the Your HOA Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$80,000 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of \$287,340 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2016 being accomplished in 2016 at a cost of \$44,151.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1							
CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
SITE COMPONENTS	5 to 80 years	1 to 68 years	\$1,011,235	\$44,140	\$109,614		\$153,755
SITE COMPONENTS (cont.)	5 to 45 years	5 to 33 years	\$146,297	\$3,470	\$6,490		\$9,960
BUILDING EXTERIORS	10 to 50 years	3 to 38 years	\$140,905	\$5,333	\$7,019		\$12,352
BUILDING INTERIORS	7 to 35 years	0 to 23 years	\$104,035	\$6,461	\$20,652	\$10,109	\$17,003
BUILDING SYSTEMS	15 to 30 years	3 to 18 years	\$40,400	\$2,934	\$7,671		\$10,605
RECREATION	5 to 60 years	0 to 39 years	\$297,168	\$12,672	\$37,063	\$24,763	\$24,973
RECREATION (cont.)	10 to 25 years	0 to 14 years	\$64,465	\$2,947	\$7,325	\$880	\$9,392
RECREATION (cont.)	2 to 30 years	0 to 26 years	\$54,693	\$2,043	\$11,506	\$8,400	\$5,149

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 96 Projected Replacements included in the Your HOA Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$243,188 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of \$463,608 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of \$104,881.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
SITE COMPONENTS	5 to 80 years	0 to 67 years	\$1,011,235	\$153,755	\$109,614	\$104,881	\$158,488
SITE COMPONENTS (cont.)	5 to 45 years	4 to 32 years	\$146,297	\$9,960	\$6,490		\$16,449
BUILDING EXTERIORS	10 to 50 years	2 to 37 years	\$140,905	\$12,352	\$7,019		\$19,371
BUILDING INTERIORS	7 to 35 years	1 to 22 years	\$104,035	\$17,003	\$13,109		\$30,113
BUILDING SYSTEMS	15 to 30 years	2 to 17 years	\$40,400	\$10,605	\$7,671		\$18,276
RECREATION	5 to 60 years	1 to 38 years	\$297,168	\$24,973	\$17,525		\$42,498
RECREATION (cont.)	10 to 25 years	2 to 14 years	\$64,465	\$9,392	\$6,601		\$15,993
RECREATION (cont.)	2 to 30 years	1 to 25 years	\$54,693	\$5,149	\$8,238		\$13,387

2018 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 96 Projected Replacements included in the Your HOA Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$314,576 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of \$610,385 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of \$36,186.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2018 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
SITE COMPONENTS	5 to 80 years	0 to 66 years	\$1,011,235	\$158,488	\$80,124	\$3,406	\$235,206
SITE COMPONENTS (cont.)	5 to 45 years	3 to 31 years	\$146,297	\$16,449	\$6,490		\$22,939
BUILDING EXTERIORS	10 to 50 years	1 to 36 years	\$140,905	\$19,371	\$7,019		\$26,390
BUILDING INTERIORS	7 to 35 years	0 to 21 years	\$104,035	\$30,113	\$13,109	\$3,150	\$40,072
BUILDING SYSTEMS	15 to 30 years	1 to 16 years	\$40,400	\$18,276	\$7,671		\$25,947
RECREATION	5 to 60 years	0 to 37 years	\$297,168	\$42,498	\$17,525	\$21,230	\$38,794
RECREATION (cont.)	10 to 25 years	1 to 13 years	\$64,465	\$15,993	\$6,601		\$22,594
RECREATION (cont.)	2 to 30 years	0 to 24 years	\$54,693	\$13,387	\$8,238	\$8,400	\$13,225

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$80,000 Beginning Balance, as reported by the Association and the \$530,385 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 96 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$80,000 on January 1, 2016.
- Replacement Reserves on Deposit totaling \$243,188 on January 1, 2017.
- Replacement Reserves on Deposit totaling \$314,576 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of \$610,385 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$185,218.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
SITE COMPONENTS												
1	Asphalt pavement, mill & overlay 1/3r	147,467	10,640	19,547		30,186	19,547		49,733	19,547		69,280
2	Asphalt pavement, seal coat 1/3rd	17,875	1,190	8,342		9,533	8,342	(17,875)		3,575		3,575
3	Asphalt pavement, mill & overlay 1/3r	147,467	9,821	17,206		27,027	17,206		44,233	17,206		61,438
4	Asphalt pavement, seal coat 1/3rd	17,875	1,190	8,342		9,533	8,342	(17,875)		3,575		3,575
5	Asphalt pavement, mill & overlay 1/3r	147,467	9,003	15,385		24,388	15,385		39,773	15,385		55,158
6	Asphalt pavement, seal coat 1/3rd	17,875	1,190	8,342		9,533	8,342	(17,875)		3,575		3,575
7	Concrete curb & gutter (3%)	23,643	1,750	10,947		12,696	10,947	(23,643)		3,941		3,941
8	Concrete flatwork (3%)	26,126	1,933	12,096		14,030	12,096	(26,126)		4,354		4,354
9	Stone steps, repoint (20%)	1,487	110	689		799	689	(1,487)		248		248
10	Wood steps, PTL closed riser	1,669	28	97		124	97		221	97		317
11	Wood steps, PTL railing	2,959	49	171		220	171		392	171		563
12	Wood ped. bridge w/rail, PTL	3,406	340	1,022		1,362	1,022		2,384	1,022	(3,406)	
13	Retaining wall, stone	302,225	4,613	4,313		8,926	4,313		13,239	4,313		17,552
14	Retaining wall, stone (repoint) 10%	3,369	150	537		686	537		1,223	537		1,759
15	Stone wall/fireplace/fire pit repoint 10%	385	17	61		78	61		140	61		201
16	Retaining wall, segmental block	138,600	2,115	1,978		4,093	1,978		6,071	1,978		8,049
17	Retaining wall, segmental block, 10%	11,340		540		540	540		1,080	540		1,620
SITE COMPONENTS (cont.)												
18	Fence, 6' galvanized chain link	5,130		171		171	171		342	171		513
19	Fence, 6' PTL-wood picket @ firepit	7,392	369	638		1,008	638		1,646	638		2,285
20	Fence, 3' aluminum w/ 2 rails & picket	7,092	192	203		395	203		598	203		801
21	Fence, 6' aluminum w/ 3 rails & picket	60,253	1,635	1,724		3,359	1,724		5,083	1,724		6,807
22	Mailbox, stone cluster (18 boxes)	175	6	7		13	7		20	7		27
23	Irrigation, allowance	5,000		833		833	833		1,667	833		2,500
24	Gazebo, 14' octagon, PTW w/ cedar sh	12,700	169	570		739	570		1,308	570		1,878
25	Pavilion, PTL-wood w/ asphalt shingle	17,298	288	500		788	500		1,289	500		1,789
26	Storm water management (10% allowa	11,250		592		592	592		1,184	592		1,776
27	Well pump	1,000	61	104		165	104		270	104		374
28	Pond pump	1,600		160		160	160		320	160		480
29	Pond liner, large	10,800	440	545		985	545		1,530	545		2,075
30	Pond liner, small	4,608	188	233		420	233		653	233		886
31	Entrance Feature/sign allowance	2,000	122	209		331	209		539	209		748
BUILDING EXTERIORS												
32	Roofing, asphalt shingles CH	23,296	1,655	2,405		4,060	2,405		6,464	2,405		8,869
33	Gutter & downspouts, 5" aluminum CH	2,912	119	147		266	147		413	147		560
34	Siding & trim, cementitious CH	54,810	1,338	1,371		2,710	1,371		4,081	1,371		5,452
35	Masonry (10% repointing allowance) C	1,300		68		68	68		137	68		205
36	Door, wood & glass CH	6,750	330	459		788	459		1,247	459		1,705
37	Window, CH	19,334	590	646		1,237	646		1,883	646		2,529
38	Exterior lighting, allowance CH	2,000	163	459		622	459		1,081	459		1,541
39	Deck, structure (PTL) CH	14,175	433	474		907	474		1,380	474		1,854

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
40	Deck, composite decking CH	5,198	317	542		860	542		1,402	542		1,944
41	Deck, metal railing CH	11,130	388	448		836	448		1,283	448		1,731
BUILDING INTERIORS												
42	Flooring, wood refinish CH	10,109	1,122	8,987	(10,109)		1,444		1,444	1,444		2,888
43	Flooring, wood plank & screw, replace	40,716	1,937	4,847		6,784	4,847		11,632	4,847		16,479
44	Interior lighting, allowance	3,000	262	913		1,174	913		2,087	913	(3,000)	
45	Building/pool entry system	2,500	153	261		413	261		674	261		935
46	Furniture/fixtures/wall art allow CH 50	7,500	666	1,709		2,374	1,709		4,083	1,709		5,791
47	Furniture/fixtures/wall art allow CH 50	7,500	375	648		1,022	648		1,670	648		2,318
48	Kitchen, residential cabinets	4,400	256	414		670	414		1,085	414		1,499
49	Kitchen, residential, solid surface coun	1,260	44	51		95	51		145	51		196
50	Kitchen, residential electric range	1,100	64	104		168	104		271	104		375
51	Kitchen, 18 cf residential refrigerator	1,050	61	99		160	99		259	99		358
52	Kitchen, residential dishwasher	750	44	71		114	71		185	71		256
53	Kitchen, residential countertop microw	150	13	46		59	46		104	46	(150)	
54	Restroom, renovate CH	8,000	488	835		1,323	835		2,158	835		2,992
55	Locker / Shower room, renovate CH	16,000	977	1,669		2,646	1,669		4,315	1,669		5,985
BUILDING SYSTEMS												
56	Lift, wheel chair	14,400	1,172	3,307		4,479	3,307		7,786	3,307		11,093
57	Exchange unit	6,900	281	348		629	348		978	348		1,326
58	HVAC split system,	14,100	1,148	3,238		4,386	3,238		7,624	3,238		10,862
59	Fire system, allowance	5,000	333	778		1,111	778		1,889	778		2,666
RECREATION												
60	Swimming pool structure main	172,040	6,365	4,142		10,507	4,142		14,649	4,142		18,791
61	Swimming pool structure wading	18,955	701	456		1,158	456		1,614	456		2,070
62	Swimming pool, whitecoat main	11,840		1,184		1,184	1,184		2,368	1,184		3,552
63	Swimming pool, whitecoat wading	1,305		130		130	130		261	130		391
64	Swimming pool waterline tile (6x6) ma	1,583		158		158	158		317	158		475
65	Swimming pool waterline tile (6x6) wa	477		48		48	48		95	48		143
66	Swimming pool coping, main	4,290	238	405		643	405		1,048	405		1,454
67	Swimming pool coping, wading	1,293	72	122		194	122		316	122		438
68	Pool deck, concrete 1/3rd	18,988	2,108	16,880	(18,988)		1,899		1,899	1,899		3,798
69	Pool deck coating	5,775	641	5,134	(5,775)		578		578	578		1,155
70	Pool deck pavers, sand set, replace	35,108	1,072	1,174		2,245	1,174		3,419	1,174		4,593
71	Pool deck pavers, sand set, reset	12,730	565	4,055		4,620	4,055		8,675	4,055	(12,730)	
72	Pool cover, safety mesh	2,155	120	339		459	339		798	339		1,137
73	Pool pump, 2 HP	6,000	466	1,845		2,311	1,845		4,155	1,845	(6,000)	
74	Pool filter	2,130	130	222		352	222		574	222		797
75	Chlorine controllers	2,500	194	769		963	769		1,731	769	(2,500)	
RECREATION (cont.)												
76	Pool furniture, lounge	9,500	633	1,478		2,111	1,478		3,588	1,478		5,066
77	Pool furniture, chair	2,530	168	394		562	394		956	394		1,349
78	Pool furniture, round table 54"	1,250	102	287		389	287		676	287		963
79	Pool furniture, end table	585	48	134		182	134		316	134		451
80	Pool furniture, umbrella	1,380	112	317		429	317		746	317		1,063
81	Pool pole lights	2,000	133	311		444	311		755	311		1,067
82	Pool wall mount lights	200	13	31		44	31		76	31		107
83	Pool Pergola, PTL-wood	23,100	1,128	1,569		2,698	1,569		4,267	1,569		5,836
84	Picnic Table	7,000	207	618		825	618		1,442	618		2,060
85	Bench	880	98	782	(880)		59		59	59		117
86	Bench	5,280	195	508		704	508		1,212	508		1,721
87	Bench	8,800		587		587	587		1,173	587		1,760
88	Lawn furniture at firepit	1,000	67	156		222	156		378	156		533
89	Grill, charcoal park	960	43	153		196	153		348	153		501
RECREATION (cont.)												
90	Tot lot, MP structure, 2 platforms	26,500	588	2,159		2,748	2,159		4,907	2,159		7,066
91	Tot lot, spring ride (small)	4,125	92	336		428	336		764	336		1,100
92	Tot lot, 5" arch-frame swing, 2 seat	5,100	113	416		529	416		944	416		1,360
93	Fence, 3' PTL-wood picket @ tot lot	2,190	36	127		163	127		290	127		416
94	Tot lot, border recycled plastic	2,723	30	100		130	100		230	100		329
95	Exercise equipment 20%	8,400	932	7,468	(8,400)		4,200		4,200	4,200	(8,400)	
96	Rubber flooring	5,655	251	901		1,152	901		2,052	901		2,953

1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for community facilities and infrastructure around many of our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new town house abutted a public street on the front and a public alley on the rear. Open space was provided by a nearby public park and recreational facilities were purchased ala carte from privately owned country clubs, swim clubs, tennis clubs, and gymnasiums. Today, 60% of all new residential construction, i.e. townhouses, single-family homes, condominiums, and cooperatives, is in Common Interest Developments (CID). In a CID, a homeowner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, streetlights, recreational facilities, and other community facilities and infrastructure.

The growth of Community Associations has been explosive. In 1965, there were only 500 Community Associations in the United States. According to the 1990 U.S. Census, there were 130,000 Community Associations. Community Associations Institute (CAI), a national trade association, estimates there were more than 200,000 Community Associations in the year 2000, and that the number of Community Associations will continue to multiply.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated problems. Although Community Associations have succeeded in solving many short-term problems, many Associations have failed to properly plan for the tremendous expenses of replacing community facilities and infrastructure components. When inadequate replacement reserve funding results in less than timely replacements of failing components, home owners are exposed to the burden of special assessments, major increases in Association fees, and a decline in property values.

2. REPLACEMENT RESERVE STUDY

The purpose of a Replacement Reserve Study is to provide the Association with an inventory of the common community facilities and infrastructure components that require periodic replacement, a general view of the condition of these components, and an effective financial plan to fund projected periodic replacements. The Replacement Reserve Study consists of the following:

- **Replacement Reserve Study Introduction.** The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.
- **Section A Replacement Reserve Analysis.** Many components owned by the Association have a limited life and require periodic replacement. Therefore, it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Miller - Dodson provides a replacement reserve recommendation based on the Cash Flow Method in Section A, and the Component Method in the Appendix of the report.
- **Section B Replacement Reserve Inventory.** The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.

Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.

- **Section C Projected Annual Replacements.** The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.
- **Section D Condition Assessment.** Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.
- **The Appendix is provided as an attachment to the Replacement Reserve Study.** Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc). The Appendix also includes the Accounting Summary for the Cash Flow Method and the Component Method.

3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Minimum Annual Contribution to the Reserves. The results of both methods are presented in this report. The Association should obtain the advice of its accounting professional as to which method is more appropriate for the Association. The two methods are:

- **Cash Flow Method.** The Cash Flow Method is sometimes referred to as the "Pooling Method." It calculates the minimum constant annual contribution to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the specified minimum level in any year.

First, the Minimum Recommended Reserve Level to be Held on Account is determined based on the age, condition, and replacement cost of the individual components. The mathematical model then allocates the estimated replacement costs to the future years in which they are projected to occur. Based on these expenditures, it then calculates the minimum constant yearly contribution (Minimum Annual Deposit) to the reserves necessary to keep the reserve balance at the end of each year above the Minimum Recommended Reserve Level to be Held on Account. The Cash Flow Analysis assumes that the Association will have authority to use all of the reserves on hand for replacements as the need occurs. This method usually results in a Minimum Annual Deposit that is less than that arrived at by the Component Method.

- **Component Method.** This method is a time tested mathematical model developed by HUD in the early 1980s, but has been generally relegated to a few States that require it by law. For the vast majority of Miller - Dodson's clients, this method is not used.

The Component Method treats each item in the replacement schedule as an individual line item budget. Generally, the Minimum Annual Contribution to Reserves is higher when calculated by the Component Method. The mathematical model for this method works as follows:

First, the total Current Objective is calculated, which is the reserve amount that would have accumulated had all of the items on the schedule been funded from initial construction at their current replacement costs. Next, the Reserves Currently on Deposit (as reported by the Association) are distributed to the components in the schedule in proportion to the Current Objective. The Minimum Annual Deposit for each component is equal to the Estimated Replacement Cost, minus the Reserves on Hand, divided by the years of life remaining.

4. REPLACEMENT RESERVE STUDY DATA

- **Identification of Reserve Components.** The Reserve Analyst has only two methods of identifying Reserve Components; (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.
- **Unit Costs.** Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures.

Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information, which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report is commenced.

- **Replacement vs. Repair and Maintenance.** A Replacement Reserve Study addresses the required funding for Capital Replacement Expenditures. This should not be confused with operational costs or cost of repairs or maintenance.

5. DEFINITIONS

Adjusted Cash Flow Analysis. Cash flow analysis adjusted to take into account annual cost increases due to inflation and interest earned on invested reserves. In this method, the annual contribution is assumed to grow annually at the inflation rate.

Annual Deposit if Reserves Were Fully Funded. Shown on the Summary Sheet A1 in the Component Method summary, this would be the amount of the Annual Deposit needed if the Reserves Currently on Deposit were equal to the Total Current Objective.

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

Contingency. An allowance for unexpected requirements. Roughly the same as the Minimum Recommended Reserve Level to be Held on Account used in the Cash Flow Method of analysis.

Critical Year. In the Cash Flow Method, a year in which the reserves on hand are projected to fall to the established minimum level. See Minimum Recommended Reserve Level to be Held on Account.

Current Objective. This is the reserve amount that would have accumulated had the item been funded from initial construction at its current replacement cost. It is equal to the estimated replacement cost divided by the estimated economic life, times the number of years expended (the difference between the Estimated Economic Life and the Estimated Life Left). The Total Current Objective can be thought of as the amount of reserves the Association should now have on hand based on the sum of all of the Current Objectives.

Cyclic Replacement Item. A component item that typically begins to fail after an initial period (Estimated Initial Replacement), but which will be replaced in increments over a number of years (the Estimated Replacement Cycle). The Reserve Analysis program divides the number of years in the Estimated Replacement Cycle into five equal increments. It then allocates the Estimated Replacement Cost equally over those five increments. (As distinguished from Normal Replacement Items, see below)

Estimated Economic Life. Used in the Normal Replacement Schedules. This represents the industry average number of years that a new item should be expected to last until it has to be replaced. This figure is sometimes modified by climate, region, or original construction conditions.

Estimated Economic Life Left. Used in the Normal Replacement Schedules. Number of years until the item is expected to need replacement. Normally, this number would be considered to be the difference between the Estimated Economic Life and the age of the item. However, this number must be modified to reflect maintenance practice, climate, original construction and quality, or other conditions. For the purpose of this report, this number is determined by the Reserve Analyst based on the present condition of the item relative to the actual age.

Estimated Initial Replacement. For a Cyclic Replacement Item (see above), the number of years until the replacement cycle is expected to begin.

Estimated Replacement Cycle. For a Cyclic Replacement Item, the number of years over which the remainder of the component's replacement occurs.

Minimum Annual Deposit. Shown on the Summary Sheet A1. The calculated requirement for annual contribution to reserves as calculated by the Cash Flow Method (see above).

Minimum Deposit in the Study Year. Shown on the Summary Sheet A1. The calculated requirement for contribution to reserves in the study year as calculated by the Component Method (see above).

Minimum Recommended Reserve Level to be Held on Account. Shown on the Summary Sheet A1, this number is used in the Cash Flow Method only. This is the prescribed level below which the reserves will not be allowed to fall in any year. This amount is determined based on the age, condition, and replacement cost of the individual components. This number is normally given as a percentage of the total Estimated Replacement Cost of all reserve components.

Normal Replacement Item. A component of the property that, after an expected economic life, is replaced in its entirety. (As distinguished from Cyclic Replacement Items, see above.)

Normal Replacement Schedules. The list of Normal Replacement Items by category or location. These items appear on pages designated.

Number of Years of the Study. The numbers of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. This study covers a 40-year period.

One Time Deposit Required to Fully Fund Reserves. Shown on the Summary Sheet A1 in the Component Method summary, this is the difference between the Total Current Objective and the Reserves Currently on Deposit.

Reserves Currently on Deposit. Shown on the Summary Sheet A1, this is the amount of accumulated reserves as reported by the Association in the current year.

Reserves on Hand. Shown in the Cyclic Replacement and Normal Replacement Schedules, this is the amount of reserves allocated to each component item in the Cyclic or Normal Replacement schedules. This figure is based on the ratio of Reserves Currently on Deposit divided by the total Current Objective.

Replacement Reserve Study. An analysis of all of the components of the common property of the Association for which a need for replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its estimated Replacement Cost, Estimated Economic Life, and Estimated Life Left. The objective of the study is to calculate a recommended annual contribution to the Association's Replacement Reserve Fund.

Total Replacement Cost. Shown on the Summary Sheet A1, this is total of the Estimated Replacement Costs for all items on the schedule if they were to be replaced once.

Unit Replacement Cost. Estimated replacement cost for a single unit of a given item on the schedule.

Unit (of Measure). Non-standard abbreviations are defined on the page of the Replacement Reserve Inventory where the item appears. The following standard abbreviations are used in this report:

EA: each FT: feet LS: lump sum PR: pair SF: square feet SY: square yard

What is a Reserve Study?
Who are we?



<http://bcove.me/nc0o69t7>

What kind of property uses a Reserve Study?
Who are our clients?



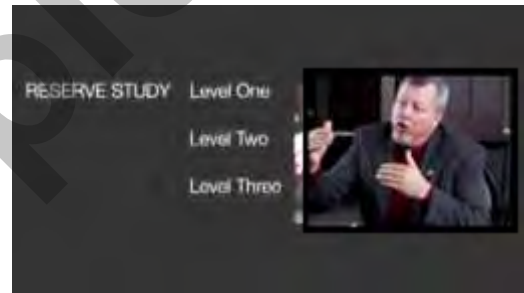
<http://bcove.me/stt373hj>

Who conducts a Reserve Study?
Reserve Specialist (RS) what does this mean?



<http://bcove.me/81ch7kit>

When should a Reserve Study be updated?
What are the different types of Reserve Studies?



<http://bcove.me/ixis1yxm>

What is in a Reserve Study and what is out?
Improvement vs Component, is there a difference?



<http://bcove.me/81ch7kit>

What is my role as a Community Manager?
Will the report help me explain Reserves to my



<http://bcove.me/fazwdk3h>

clients?

What is my role as a Board Member?
Will a Reserve Study meet my community's needs?



<http://bcove.me/n6nwnktv>

Community dues, how can a Reserve Study help?
Will a study help keep my property competitive?



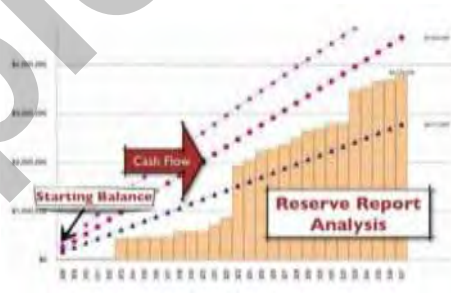
<http://bcove.me/2vfih1tz>

How do I read the report?
Will I have a say in what the report contains?



<http://bcove.me/wb2fugb1>

Where do the numbers come from?
Cumulative expenditures and funding, what?



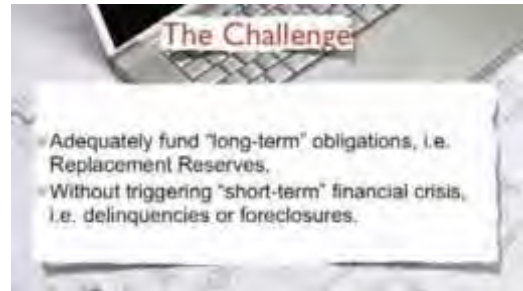
<http://bcove.me/7buer3n8>

How are interest and inflation addressed?
What should we look at when considering inflation?



<http://bcove.me/s2tmtj9b>

A community needs more help, where do we go?
What is a Strategic Funding Plan?



<http://bcove.me/iqul31vq>